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- 1-Iowa City - 1913.
- 2-Confalls..1913
- 3-Bayfield - 1913.
- 4- Earlville -  $\frac{4}{17-18}$  1913
- 5-Mason City  $\frac{4}{19-20}$  1913
- 6-Homestead - 1915

- 7-Muscatine Id. - 1916
- 8-Mason City  $\frac{4}{25}$  1920.
- 9- " "  $\frac{7}{4-6}$  1920
- 10-Mason City, Sep 17 - 1922
- 11- " " " 18 - 1922



Ebough  
Armen, etc.

Haywood  
Inquiries

Selby son.

5 - M  
1 - M.

Weldon

Calif. Hort. Soc.

1913

Iowa City.

Season stormy during March.  
Early part of April better, but  
the week ending Apr. 11 was very  
wet & on Tuesday, Apr. 8, snow fell  
abundantly.

Soft Maple was in flower first week  
of April & Am. elm 2<sup>nd</sup> week.  
Viburnum fulva opened about Apr. 9.



Apr. 12, 1913 Saturday

Went to Confol's woods.

Found hazel, *Trillium nivale* &  
a few *Hepaticas* in flower. *Ulex*  
*fulva* is just in prime. *U. americana*  
is about done. It is soft maple.

Woodruff is just coming in bud.

Also found large red *Saxosiphia*

The day was bright but a little  
cool.

Took up roots of *Aspidium*  
*spinulosum* (buds still green)  
with buds just showing.

Also *Asplenium* &

*Asplenium filix-foemina*  
(took roots)

Apr. 14, 1913 - Monday.

Left at 8<sup>35</sup> am for Bayfield.

Day bright, but cool in morning.

Found woods on bluff below

Blackstrap School ravine  
cleared, - but poor pasture!

Walked to sandy point S. of sphagnum

bog & found *Houstonia missouriensis*

*Diabela caroliniana* and *Androsace*  
*caroliniana* in flower

*Amelanchier canadensis* in bud.

Stems, fls. of *Populus grandidentata*

Hazel through.

Walked back to sphagnum bog &

to shrub cabbage bog.

Found shrub cabbage, *Salix*

*discolor*, *Caltha palustris*

in flower. Also *Diabela*

& *Androsace* on sandy hill above  
spring.

Walked up to wet places higher



up and further east, & collected  
some frogs. Went to road, E.  
of house. E. of road were  
many frogs, with large clusters  
of eggs.

Snow birds were plentiful,  
*Agelaius phoeniceus* were  
abundant & whistled freely.  
Shank cabbages were almost  
thawed.

Left Mayfield at 4:52 pm  
& got home at 6:18 pm.

Apr. 18, 1913.

## Trip to Earlville and Mason City

Left Iowa City Apr. 18 (Friday)  
at 6:30, attended Matine meeting  
& at 10 pm. went to Mrs. Frewin's  
house.

Apr. 19 - Saturday

Left Cedar Rapids at 6:30 am.  
for Manchester and Earlville.  
Mrs. Frewin, Sr. & Jr. went.  
We drove N. along Frop. line  
from Earlville, and then W. to  
Frewin farm. Stopped at  
Garrett's dam & collected  
mosses and diatoms, and a  
few *Physa* and a *Lymnaea* on  
the rocks below dam.

Walked to Almond & found  
piece of prairie along RR, opposite  
station & west, and another on a  
mound just W. of road going



N. from Brewin's house.

There are also tops along RR,  
& we found much Caltha palustris  
a few in flower.

Along road S. of RR, (C. Ex. 40)  
leading to Brewin's, along brook  
from Corylus americana &  
Populus grandidentata (stem)  
in flower.

On bluff along creek many  
Hepatica in flower.

Picked up a few land shells  
on bluff near bridge.

Some mosses were fine.

On higher prairie strip just W. of  
Brewin's road - from Carex pennsylvanica  
in flower.

Left Earlville at 3<sup>15</sup> P.M. for  
Parkersburg. Fare \$1.64

Ate supper at the Parkersburg Hotel  
& took C. & N.O. for Mason City at  
7:20 P.M. At hotel (on train) met  
an original Irishman, - Mike  
Sullivan, - a betting, etc. salesman,  
who has travelled widely.

Reached Mason City at 9 P.M. &  
visited with the folks.

Rained a little at night.

Apr. 20 - (Sunday) 1913

Cloudy in morning. Looked like  
rain.

Went out to Big Slough.

Found following plants in flower.

Alnus fulva - just beginning  
<sup>in</sup> americana - along, through.  
Hepatica - just started  
Salix discolor - flower.

" " " " red low  
shrub on plateau <sup>SW. of</sup> Big Slough.



*Populus tremuloides* - <sup>newly</sup> ~~about~~ though  
*Corylus americana* - at best,  
*Negundo aceroides* - stem, just coming  
*Callithrix palustris* - in bud.

Dredged in the slough. Found  
many *Segmentina*, *Aplexa* and  
small *Lymnaea*. Few larger  
*Pisidium*, but collects about  
200? of the minute ones.

I got most of this material by  
'sweeping' the grasses and  
reeds which are in water.

Even the *Pisidia* (both species)  
were found in that way, though  
I got more of the little one  
by dragging the bottom.

also picked up many *Polyzora*  
*profunda* & *P. multilunata*, &  
a few *P. paterna*, & some  
*Pyramidula alternata* on the  
same slopes, which are now

almost entirely cleared.  
Few were moving. Most of  
the *P. profunda* have cephalopods.  
(It has been cold up here until  
a week ago.)

also from *Vertigo*.

Under sticks in the bog I  
found a few *Carychium* &  
large *Encrinurus fulvus*.  
Also two dead shells of *Zonitoides*  
*nitidus*.

Also another shell of *Zon. arborum*  
& two *Buc. arvan*.

A few *S. retusa* were found  
living. *Segmentina* was  
especially abundant.

On the slope *P. profunda*  
was found mostly away from  
sticks & stumps, in little  
pockets covered with leaves.  
*P. multilunata* & *P. alternata*



were more common about  
sticks or little rubbish  
heaps.

Also picked up a few murex  
& 1 lichen (*Pheloscista*) on  
bar walls.

Left Manzanito at 7.40 pm  
via Huerfano. Fare to  
Dome City = \$3.10.



~~Wash City June 25, 1920~~

~~Mr. Wilson's men drove me out to bridge  
S.E. - on road going E. through sec. 12.~~

~~I found fringe of trees & shrubs  
all along the creek, - just a  
narrow border.~~

~~The territory N. & S. of road &  
E. of Pine creek is a flat, somewhat  
undulating <sup>low</sup> rise. The little cuts  
all along the road (they are paving  
it) show that 1-2 ft. below the  
surface soil there is a mass of  
gravel, small boulders (mostly under  
6 in. in diam) and water-worn  
fragments of rock.~~

~~It looks like  
water-lain stuff, but may be  
glacial drift.~~

~~On low ground in <sup>my</sup> slough along pond  
I found quite a number of *Phlox  
maculata* in fl.~~

~~(Cross the bridge across Pine creek~~



Oct. 8, 1915 *Homestead*  
In <sup>upland</sup> woods:

*Crataegus margaritella*  
*Ostrya quingrebolia*  
*Urtica vulpina*  
*Prunus serotina*  
*Sambucus canadensis*  
*Corylus americana*  
*Polygonum humiflorum* v. *scandens*  
*Cornus paniculata*  
*Smilax herbacea*  
*Smilax racemosa*  
*Prunus virginiana*  
*Ulmus fulva*  
*Eupatorium verticillifolium*  
*Hystrix patula*  
*Quercus macrocarpa*  
*Carya ovata*  
*Asplenium filix-foemina*  
*Populus tremuloides*  
*Cirsium altissimum*

*Rubus occidentalis*  
*Rhus toxicaria*  
*Geum album*  
*Menispermum canadense*  
*Desmodium grandifolium*  
*Elymus striatus*  
*Festuca mitans*  
*Drop seed* — (grass)  
*Agrimonia stipitata*  
" *gryposepala*  
*Circaea lutetiana*  
*Rubus gracilis*  
*Muhlenbergia sylvatica*  
*Bromus pumilus*  
*Anemone virginiana*  
*Sanicula marilandica*  
*Osmorhiza longistylis* (2)  
*Actaea dumosa*  
*Demulchella Dillenii*  
*Solidago ulmifolia*  
*Triosteum perfoliatum*  
*Cissampelos* v. *C. crulleri*



*Lactuca floridana*  
*Scrophularia marylandica*  
*Althaea viridula*  
*Galium triflorum*  
*Carpenteria americana*  
*Chrysomela velutina*  
*suber*  
*alba*  
*Eupatorium purpureum*  
*Polygonum virginicum*  
*Monarda grandiflora*  
*Cryptotaenia canadensis*  
*Galium aparine*  
*Urtica americana*  
*Monarda uniflora*  
*Panicum hirsutum*  
*Xanthoxylum americanum*  
*Lappula virginiana*  
*Rubus allegheniensis*  
*Adiantum pedatum*  
*Lobelia inflata*

*Thalictrum puberulum*  
*Veronica virginica*  
*Polemonium reptans*  
*Phlox leptostachya*  
*Clasium scandens*  
*Lonicera ~~reticulata~~ <sup>supplicata</sup>*  
*Ampelopsis monoica*  
*Smilax hispida*  
*Carya cordifolia*  
*Onoclea sensibilis*  
*Impatiens biflora*  
*Laportea canadensis*  
*Rhus glabra*  
*Oxalis filipes*  
*Vicia americana*  
*Carex verna*  
*Rosa blanda*  
*Gleditsia*  
*onyx*  
*Acacia*  
*Thistle*  
*Panicum*  
*Far more*  
*Ostrya virginica*  
*Ulmus americana*  
*Hepatica aculeata*

*Panicum*  
*Ostrya*  
*Portulaca*  
*Andromeda*



Along road

*Solidago canadensis*

*Lespedeza cuneata*

*Mimulus mollis*

*Coreopsis tripteris*

*Carya chrysophylla*

*Polypogon sanguineus*

*Aster salicifolius*

*Euphorbia corollata*

*Solidago nemoralis*

*Rhus glabra*

(*Quercus muhlenbergii*

*velutina* juv)

*Potamogeton amplifolius*

*Quercus*

*cinerea* *crataegi*

*Leptochloa purpurea*

*Aster Drummondii*

*Heliopsis scabra*

*Lactuca floridana*

*Aspiris tuberosa*

*Agrostis perfoliata*

(*Carya* *Pignus*)

*Bromus horridus*

*Elymus virginicus*

(*Styracis* *virginica* juv) *Fraxinus*

(*Prunus serotina*)

*Hamamelis* *virginica*

*Rudbeckia hirta*

*Antennaria plantaginifolia*

*Oxalis filipes*

*Euphorbia corollata*

*Ranunculus alba*

*Amelanchier canadensis*

*Andropogon furcatus*

*Aster agerifolius*

*Amelanchier canadensis*

*Sorghastrum nutans*

*Solidago ulmifolia*

*Ceanothus americanus*

*Panicum Scribnerianum*

*Eragrostis canadensis*

*Cornus pellucida* (Red berry)

*Aster laevis*



*Lactuca canadensis* (no loc)  
*Oenothera biennis*  
*Prunella vulgaris*  
*Solidago verticillata*  
*Hystrix patula*  
*Asplenium integrifolium*  
*Desmodium illinoense*?  
*Elymus canadensis*  
*Muhlenbergia racemosa*  
*Cirsium altissimum*  
*Asclepias syriaca*  
*Lactuca scariola*  
*Solidago rigida*  
*Solidago speciosa*  
*Populus glandulosa* (juv)  
*Panicum virgatum*  
*Desmodium illinoense*  
*Agrostis alba vulgaris*  
*Aster novae-angliae*  
*Pyrola asarifolia*  
*Rudbeckia hirta*

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*Baptisia coreanthera*  
*Aster multiflorus* v. *longus*  
*Parthenium integrifolium*  
*Liatris pycnostachya*  
(*Pyrus ioensis* juv?)  
*Celastrus scandens*

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In brickyard (open)  
near old (old)  
*Erythronium americanum*  
*Panicum virgatum*  
*Coreopsis tripteris*  
*Rudbeckia hirta*  
*Solidago canadensis*  
" *rigida*

*Liatris pycnostachya*  
*Lespedeza capitata*  
*Pyrola asarifolia*  
*Rumex crispus*  
*Solidago nemoralis*  
" *rigida*  
*Hieracium -* <sup>hispidum?</sup> *decumbens* <sup>various</sup>  
*Solidago graminifolia*



*Graphium polycephalum*  
*Cirsium discolor*  
*Prunella vulgaris*  
*Desmodium canadense*  
*Helianthus grosseserratus*  
*Salicaps canadensis*  
*Artemisia salicifolia*  
*Rosa pratincola*  
*Asclepias tuberosa*  
*Rudbeckia hirta*  
*Mimulus mollis*  
*Cassia chamaecrista*  
*Ceanothus americanus*  
*Thalictrum leucanthum*

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Continuation along road.

*Campanula artemisiifolia*  
*Lactuca ludoviciana*  
*Astragalus canadensis*  
*Thalictrum dasycarpum*



Saturday, Apr. 22, 1916

Left at 7 P.M. for Muscatine with W. E. Rogers. Put up at Grand Hotel & arranged for morning trip.

Mr. Samuel Sinnott was at hotel & wants me to speak to his Sunday School class.

Sunday, Apr. 23, 1916.

Drove out at 6<sup>15</sup> to Sand mound.

Found many *Anemone caroliniana* (some blue & some pink, - few white)

*Draba*, *Viola pedata*, *Carex pennsylvanica*, *Diandria*, *Salix cordata*? in flower.

Also - on flats - box elder -

also 3 *Cladonia*s & a *Peltigera*, *Bryum argenteum*, *Stricklandia*, & 2 other mosses, & on flat - *Polytrichum*

Returned at 11<sup>15</sup> & took 11<sup>25</sup> car for Baybirk. Day clear & cool. Walked toward shrub culture bog from Mayfield.

Found *Cerastium*, *Houstonia*, *Draba*, some *Synthyris*, a few *Lithospermum* common in flower & low. The last & a *Dircaea* were in the open.

Culture was at its best.

Found *Anemone* common in the sandy woods along *Hesperis* bog, - in flower.



Maam City, June 25, 1920, Friday

Mr. Wilson's men drove me to bridge  
S. E., on road going E. through middle  
of sec. 12.

I found a fringe of trees & shrubs all  
along Lime creek, - only a narrow border.

Near the bridge I picked up following:

*Galium boreale*, fl. - stem.

*Rosa* - fl. - "

*Vine bark* - fr. - edge of border thicker

*Silene maritima*, fl. " " " "

*Angelica* - fl. & fr. " " " "

*Heracleum lanatum*, fl. & fr. " " " "

The territory N. & S. of road & E. of  
Lime creek. is a flat, somewhat  
undulating low ridge. The low cuts all  
along (they are paving the road) show  
that 1-2 ft. below the surface (under soil)  
there is a mass of gravel, small  
boulders (mostly under 6 in. in diam.) and  
water-worn fragments of rock. It looks  
like water laid stuff.

This was all prairie.



On low ground in Big Slough  
along road found *Phlox*  
*mamillata* in fine flower.

(The day is cloudy, windy, cool,  
& promises rain.)

In creek just S. of road I  
dredged *Sphaerium* from sandy  
places with mud film (see spec.)

The creek valley proper (i.e. the little  
Big Slough creek) narrows much  
with worn & there are big  
light colored boulders in surface as  
beats.

There is also a very low ledge  
of chipping limestone on  
W. side - small.

Found *Stellaria longifolia* (fl.) in  
low place N. edge of road <sup>conspicuous</sup> near bridge

Found *Physa heterophylla* in  
streamer from drain N. of road, near

*Vandusia* is also abundant here.

Saw *Elodea* in creek below  
bridge.

*Lyceum sinuatum* (fl.) is also common here.

Righted at edge of pool N. of bridge:

*Sagittaria latifolia* fl.

*Bistorta fruticosa* - fl.

*Eleocharis palustris* fl.

*Ranunculus palustris* fl.

*Acorus calamus* fl.

Fine swamp grass fl.

*Sium orientale* folia fl. (rhiz.) -

*Minutella virginica* - fl.

*Pentstemon violaceus* - fl.

The creek here is in narrow channel between  
banks 4-5 ft high & no border flats (lower).  
It is a meandering stream.

A little farther up *Elodea*  
beds appear & here I also found:

*Elodea* - 1 in fl. stand(?) short

*Veronica angustata* - fl.

*Carex vulpinoidea* - fl.

From  $\frac{1}{2}$  to  $\frac{3}{4}$  mi. N. of road the west  
"bluffs" are reduced to a gentle slope so that  
one cannot exactly locate the line.

The slight swell to left was prairie

& still shows:

*Cirsium Hillii* bud.

*Lobelia spicata* fl.

*Leptochloa pumila* bud.

*Helianthus scaberrimus* fl.

*Erigeron annuus* fl.



*Phlox pilosa* fl. (red)  
*Achillea millefolium* fl.  
*Poa compressa* fr.  
*Zygadenus* — fl.  
*Thalictrum dasycarpum* fl.  
*Salix humilis* lf.  
*Juncus tenuis* fr. - path.  
*Helianthus scaberrimus* lf.  
*Hordeum jubatum* fr.  
*Red top* fr.  
*Galium boreale* fl.  
*Delphinium bicolor* fl.  
*Potentilla canadensis* fl.  
*Artemisia ludoviciana* lf.  
*Hordeum liniflorum* fr.  
*Stipa spartea* fr.  
*Lepidium apetalum* fr.  
*Ammophila canescens* (small)  
*Spiraea salicifolia* lf.  
*Carex festucacea* fr.  
*Euphyasia corollata* fr. fl.  
*Thymus pubescens* fl.  
*Asclepias syriaca* lf.  
*Monarda mollis* lf.  
*Poa pratensis* fr.  
*Sisyrinchium aurea* fr.  
*Artemisia dracunculoides* lf.  
*Arenaria canadensis* fl.  
*Tradescantia bracteata* fl.  
*Fragaria virginiana* lf.  
*Veronica virginica* lf.  
*Aster multiflorus* lf.

At point where stream again enters sec.  
 1 - the banks are now only 1 or 2 ft high  
 & the stream is smaller.

All of that part to this point which  
 was once swampy (& burrweeds are  
 abundant) has been drained & is now  
 pastured.

*Hordeum jubatum*, *Poa compressa* &  
*Trifolium arvense* are now very abundant  
 all over this & here & there native  
 swamp plants are found.

The gently rising prairie to west  
 is now under cultivation & only along  
 fence is native flora found, - or  
 straggled into field.

North of 2<sup>nd</sup> road & in first 40 a. the  
 native flora is not disturbed, though the  
 place is drained. Hay!

In this part *Thalictrum dasycarpum* &  
*Phlox maculata* are most conspicuous.  
 I found following in this patch:  
 (not all named)



*Thalictrum dasycarpum* fl  
*Phlox maculata* fl.  
*Spirea arborescens* fl  
*Hieracium pulchellum* fr. <sup>most along road in</sup>  
*Pentstemon adonis* fl  
*Cicuta maculata* (fl) <sup>very com.</sup>  
*Poa pratensis* fr. <sup>very com.</sup>  
*Cyrtus simulii* fl  
*Acorus calamus* fl  
*Lythrum alatum* fl  
*Eleocharis palustris*  
*Junonia - tenuis* ?? fr. - very com.  
*Trifolium hybridum* fl. - along road.  
*Potentilla* - fl  
*Galium* - fl  
*Carex vulpina* fr. very com.  
*Carex* - fr. com.  
*Red top grass* - in spec.  
*Carex* - fr.  
*Lullula palustris* fl  
*Eleocharis acicularis* fl  
*Callitriche flaccida* fl  
*Polygonum* - fl  
*Saxifraga* - fl  
*Solidago* - ? - fl  
*Salix - baccata* ?  
*Phlox pratensis* - fr. - mostly rare.  
*Time green grass*  
*Alisma plantago* fl

A  $\frac{1}{2}$  of a mi N. of center of sec. 1  
 east of fence tract is drained  
 but is not pastured. Here on <sup>(as elsewhere)</sup>  
 drain past a good many prairie  
 plants occur. From (see list):

*Glycyrrhiza lepidota* fl  
*Phlox pilosa* fl.  
*Achillea millefolium* fl.  
*Zygadenus* - fl.  
*Allium canadense* fl  
*Lobelia spicata* fl.  
*Kirsia amplexicaulis* - old fr  
*Thalictrum dasycarpum*  
*Anemone pennsylvanica*  
*Veronica virginica*  
*Carex* (besten?)  
*Amphispiza bilineata* fl.

In the very boggy place along  
 creek tributary:

*Eupatorium perfoliatum* fl  
*Polygonum* - fl. (same as below)  
*Carex vulpina* fr  
 " 2 sp. - fr  
*Scirpus atrovirens*  
 2 grasses.

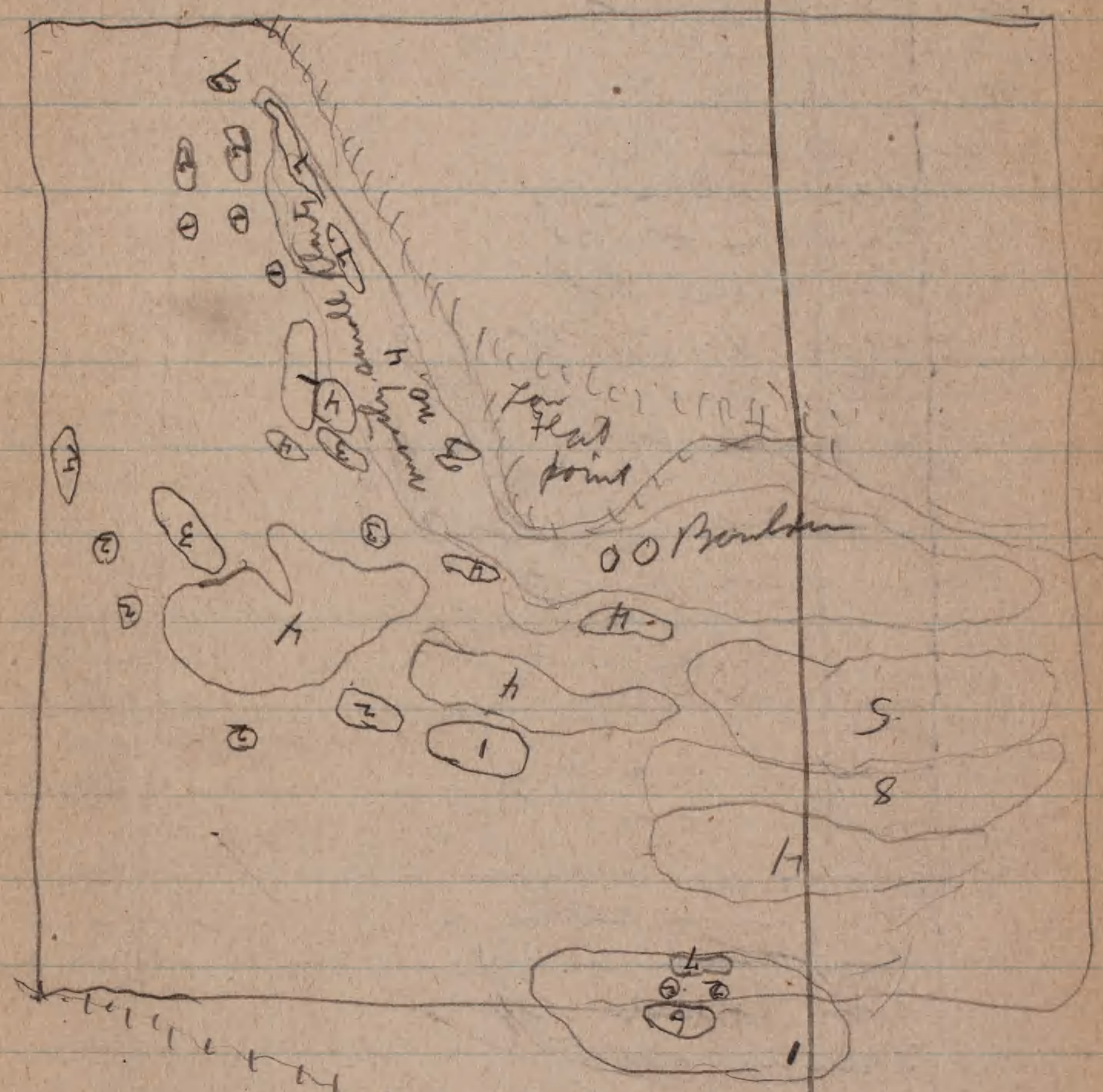


West of line marked X in  
 tract with 2 big boulders,  
 the flat is not drained.

Here I found:

- Alisma plantago* - lf.
- Zyphus latifolius* lf.
- Callium palustre* lf.
- Eriophorum angustifolium* lf.
- Carex* (type - long narrow fr.) - very com.
- Grass - dark top - very com.
- Viola* - lf.
- Juncus* - fr.
- Pedicularis lanceolata*
- Pentstemon* (white) - lf.
- Carex* (like rose) - fr.
- Zyphus* - lf.
- Aster palustris* lf.
- Saxifraga* - lf. - narrow beneath
- Carex* - yellow for light
- Grass - white - (old) tops
- Cicuta* - lf.
- Rumex* - like in fr. - lf.
- Aspidotria latifolia* lf.
- Zyphus latifolius* lf. - out of water
- Oxycoccus palustris* - lf.
- Scutellaria* - fl.
- Heimannia* ? - fr.
- Sium* - lf.

The other places in list are marked  
 + marked - position in number  
 location.

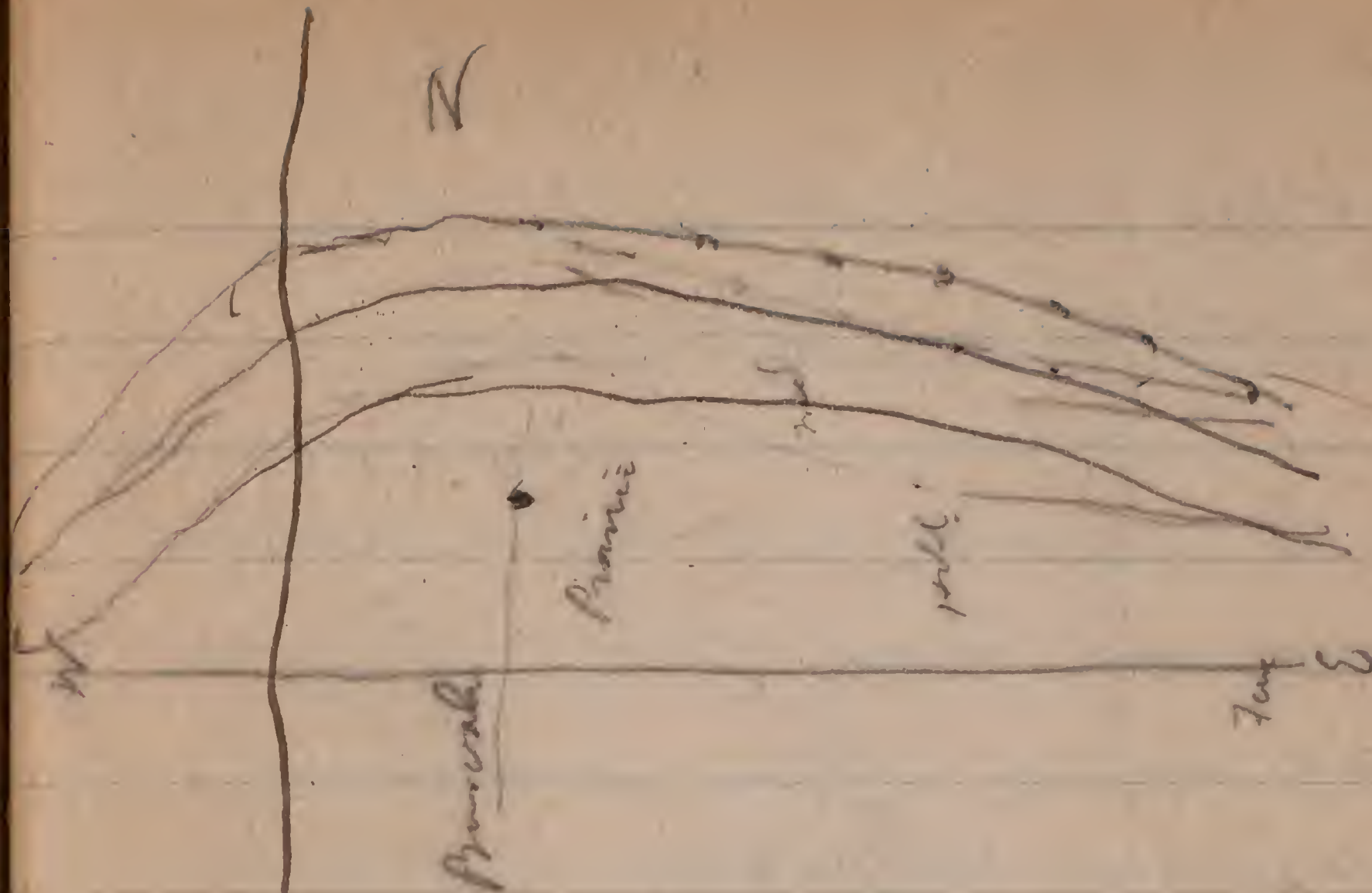


- 1 - Red about 1/2 way down
- 2 - Aspidotria
- 3 - Zyphus latifolius
- 4 - Carex with narrow dark fr. - low plants
- 5 - white trifolium green
- 6 - Carex - only 2 old plants - number
- 7 - Aspidotria
- 8 - from water growth in 40 A with 2 big
- 9 - position 3 of now lost



My prairie patch E. of RR

- Panicum Scrib.* fr.  
*Phlox pilosa* fl. white & red.  
*Acer glabrum* fl. - lf.  
*Helianthus scaberrimus* - lf.  
*Stella spicata* fr.  
*Cornus rugosa* fr.  
*Asclepias tuberosa* lf.  
*Poa pratensis* old fr.  
*Oenothera biennis* lf.  
 10 *Delphinium bicolor* fl. & bud.  
*Thalictrum dasycarpum* fl.  
*Salix humilis* lf.  
*Aster multiflorus* fr. - lf.  
*Asclepias tuberosa* bud.  
*Elymus canadensis* lf.  
*Monarda mollis* lf.  
*Monarda mollis* bud.  
*Nitella lanuginosa* lf.  
*Lepachys pinnata* lf. 6  
 20 *Ceanothus americanus* bud.  
*Nitella lanuginosa* fr. - leaf.  
*Liatris pinnata* lf.  
*Solidago nemoralis* lf.  
*Cornus rugosa* lf.  
*Gryx aurea* fr.  
*Physalis pubescens* bud.  
*Potentilla anserina* lf.  
*Asclepias syriaca* lf.  
*Eryngium yuccifolium* lf.  
 30 *Eryngium yuccifolium* fl.  
*Lobelia spicata* fl.  
*Cornus rugosa* lf.  
*Veronica virginica* lf.  
*Petalostemon purpureus* bud.  
 " *callicarpus* bud.  
*Cirsium hillii* - white



- 37 *Koeleria cristata* fr.  
*Solidago rigida* lf.  
 40 *Agrostis canadensis* old fr.  
*Cacalia tuberosa* lf. bud.  
*Rumex crispus* fr. *Poa pratensis*?  
*Andropogon scoparius* fr.  
*Aster sericeus* lf.  
 45 *Poa pratensis* - fr.  
*Viola pedunculata* lf.  
*Galium boreale* fl.  
*Antennaria canadensis* lf.  
*Euthyia venosa* lf.  
 50 *Lilium canadense* lf. & fl.  
*Acer glabrum* fl.  
*Penstemon asclepiadeus* fl.  
*Lobelia spicata* lf.  
*Rudbeckia hirta* fl.  
 55 *Helianthus scaberrimus* fl.  
*Cornus rugosa* lf.  
*Allium canadense* - bulb & fl.  
*Lilium philadelphicum* bud.  
*Eryngium* - fr.  
 60 *Asclepias tuberosa* lf. & fl.  
*Solidago canadensis* - fl.  
*Polygonum* - fl.  
*Lilium philadelphicum* lf. lower  
 65 *Asclepias tuberosa* lf. } not prairie



*Asclepias incarnata* under stones.

*Helianthus* ~~grows~~ <sup>grows</sup> below

~~*Helianthus* <sup>grows</sup> below~~

In the pond just below Magowan's  
power road across Big Hawk  
there is a fine patch of  
*Polygonum ~~lanceum~~ <sup>perfoliatum</sup>* (smooth) in  
full flower.

The fine *Potamogeton*, in very  
good fruit, is also abundant.



July 4-1920.

It rained last night, & this morning  
& ground is quite wet. It has not  
been dry here. Arrived in morning by C. & M. Rd.

I took car for Highlands at  
about 11 am.

Started in the upland woods  
S.W. of Big Spring in S.W. part.  
At edge (just off Kentucky Ave)  
in open place are a few prairie  
plants: *Helix pilosa* (red) in fl.,  
*Thalictrum dasycarpum*.

In the thicket there seems to be  
a moist place for I found  
*Campanula sparsiflora* in fl. &  
*Lilium canadense* in buds. Yet  
there is no sign of bog elsewhere, -  
its dense upland woods (thicket)  
with Pop. tremula, *Q. alleghaniensis*?  
*Cornus paniculata* (fr.), *Corylus am.*  
a small *Q. macrocarpa* - making up the

part of thicket. On the wet  
leaves on grass I found many light  
gray Discos., <sup>all kinds</sup> & a few Agniss, & a  
few Polypoda probably creeping about

Here is full list in this upland woods:  
*Strophomena* ~~viridis~~ - <sup>sp. nov.</sup> - but probably <sup>not</sup> new  
*Rosa* - fr. nov.  
*Lilium canadense* bud nov.  
*Campanula* ~~sparsiflora~~ <sup>sparsiflora</sup> fl. nov.  
*Corylus am.* lf. com.  
*Cornus paniculata* fr. com.  
*Q. macrocarpa* com.  
*Q. alleghaniensis* com.  
*Populus tremula* com.  
*Geum* <sup>macrophyllum</sup> fl. not rare  
*Rubus* <sup>alleghaniensis</sup> lf. com.  
*Saxifraga maritima* fr. com.  
*Ampelopsis* ~~maritima~~ lf. com.  
*Fragaria virginica* (large) lf. not rare  
*Galium triflorum* - fl. com.  
*Silphium perfoliatum* lf. (also with buds)  
*Thalictrum dasycarpum* fl. (mostly rather small)  
*Carex* ~~sp.~~ fr. several  
*Eriogonum* ~~hercynicum~~ fr. several  
*Pyrola* ~~sp.~~ fr. several  
*Hebe* ~~sp.~~ fr. several  
*Aralia nudicaulis* lf. nov.  
*Adiantum* ~~sp.~~ small bud - rather open  
*Solidago serotina* lf. nov.  
*Oxalis corniculata* fl. few  
*Cactaceae* ~~sp.~~ *Thalictrum* ~~sp.~~ (2 or 3) not com.



*Desmodium illinoense* fl. com.  
*Thalictrum flavum* - fr. com.  
*Celastrus scandens* lf. not uncommon.  
*(Lathyrus an?)* lf. - rather dry) usual.  
*Vitis vulpina* - lf. usual.  
*Achillea millefolium* - fr. com.  
*Taraxacum officinale* fr. (rather dry) sev.  
*Artemisia* 3 fls. - fr. sev.  
*Sambucus racemosa* lf. quite com.  
*Agrostis perfoliata* (w) sev. - some few  
*Amorpha canescens* fr. quite com.  
*Polygonum convolvulus* fl. not rare.  
*Osmorhiza brevistylis* green fr. com.  
*Rhus glabra* - small rather open, sev.  
*Lonicera* - fr. sev.  
*Amorpha canescens* lf. sev.  
*Prunella angustifolia* lf. com.  
*Hystrix patula* lf. fl. com.  
*Onoclea sensibilis* lf. (in the wet? com.)  
*Sanguinaria canadensis* lf. sev.  
*Urtica occidentalis* (smooth) fr. sev.  
*Liriodendron* - north - lf. sev.  
*Arctium luteum* - fr. sev.  
*Carex (like rosea but coarse leaved)* sev.  
*Polygonum reptans* lf. sev.  
*Prunella virginica* lf. fr. (gr.) sev.  
*Fritillaria biflora* fr. sev.  
*Botrychium virginicum* - mature fr. 1.  
*Apocynum androsaemum* - fr. rather open sev.  
*Veronica virginica* open - quite open few.  
*Grass rather fine* - fr. sev.  
*Trifolium pratense* - fl. - 1 fl.  
*Hebecladus* fr. pale sev. fr. rather open. few.

*Prunella virginica* lf. fr. sev.  
*Anemone virginica* fl. sev.  
*Hebecladus* fr. sev.  
*Lithospermum* fr. - open 1 or 2  
*Erigeron philadelphicus* fl. - edge of timber!  
 65 *Prunella virginica* fl. sev.  
*Crataegus macracantha* ? fr. sev. and  
*Viburnum* - fl. - sev.  
*Xanthoxylum* am. - quite com.  
*Q. rubra* - com.  
 70 *Ostrya virginica* - few on upland. fr.  
*Rhus glabra* - fr. - rather open sev.  
*Prunella americana* fr. - sev.  
*Q. alba* - several.  
*Comus* - fr. - few.  
 75 *Viola pubescens* - lf. sev.  
*Juniperus virginiana* lf. - fr. sev.  
*Juncus* - fl. - few.  
*Lappula virginica* fl. sev.  
*Sambucus racemosa* fr. sev.  
 80 *Asplenium filix femina* - fr. sev.  
*Allium tricoccum* fl. sev.  
*Desmodium* - broad leaved - fr. - several.  
*Marasmius* - red brown  
 white.  
 85 *Helicella* - fr. sev.  
*Campanula* am. - fr. sev.  
*Osmorhiza longistylis* - fr. sev.  
*Carex* - long, slender - fr. in long tufts.  
*Phytolacca leptostachya* - fr. sev.  
 90 *Eupatorium purpureum* - fr. sev.  
*Symphoricarpos occidentalis* fr. sev.  
*Anemone canadensis* fr. sev.  
*Rubus occidentalis* fr. sev.  
 95 *Cypripedium pubescens* fl. sev.  
*Crataegus punctata* fr. sev.  
*Erigeron philadelphicus* fl. sev.  
*Q. alba* - fr. sev.



On bluffs & banks (only) along S.W.  
side of Big Lake:

*Q. macrocarpa* com.  
*Pop. tremuloides* com.  
*Q. alleghaniensis* com.  
*Ostrya virginica* com.  
*Prunus virginiana* com. & *Eryodactylus*,  
*Vitis vulpina* - sev.  
*Prickles vulgaris* fr. several fr.  
*Corylus am.* com.  
*Ribes floridum* fr (gr.) sev.  
" *gynobati* fr (gr.) com.  
*Lonicera* (yellow) " " com.  
" (red) " " sev.  
*Juniperus virginiana* - fr. juv. many  
*Cornus* (bracts) - juv. fr.  
*Cystopteris bulbifera* fr.  
" *fragilis*? fr.  
*Azaraea ciliolata* fl. not rare.  
*Sanguinaria* fl.  
*Zizia aurea* - fr.  
*Ribes rubrum* fr. (introduced?) the other  
*herm. virginiana* fl.  
*Lappula* - blue - fl & fr.  
*Trifolium arvense* (common) fl.  
*Cirsium* - fl.  
*Castilleja triflora* - fl.  
*Cerastium* - fl.  
*Potentilla fruticosa* fl.  
Fine grass - fl.

*Amelanchier* - fl.  
*Menispermum canadense* fl.  
*Celtis occidentalis* - fl.  
*Prunella 5-folia* fl.  
*Dryas octopetala* - fr.  
*Asplenium adnigrum* fl. - 1.  
35 *Crataegus* - fr.  
*Viburnum lentago* fl.  
*Fraxinus v. lance.*  
*Ulmus fulva*  
*Juglans nigra*  
40 *Taxodium integrum* fr.  
*Rhus glabra* - fl.  
*Fraxinus nigra* fl. few  
*Solidago latifolia* fl.  
*Aureum virginicum* fl. on rocks - cl. fl.  
45 *Hieracium linaria* - fl.  
*Thalictrum flavum* fl.  
*Carex* - fl.  
*Staphylea trifolia* - fr.  
*Rosa* - fr.  
50 *Rubus cuneatus* fl & fr.  
*Polygonatum* - com. fl.  
*Symphoricarpos occidentalis* fl.  
*Hedera peltata* fl. few  
*Rubus occidentalis* fl & fr.  
55 *Cornus alternifolia* fl & fr.  
*Aralia nudicaulis* - fl.  
*Syringia* - fl.  
*Rhus toxicodendron* - fl.  
*Achillea millefolium* - fl.  
60 *Desmodium illinoense* fl.  
*Amelanchier alba* - fr.  
*Prunus americana* fl.  
*Celtis occidentalis* fl.



Openings - a bluff - SW. side Big Spring

- Symphoricarpos racemosa* fl.  
~~*Agrostis*~~ *Agrostis* - fr.  
*Potentilla* *monspeliensis* - fl.  
*Lepidium* *sp. alba* fr. & fl.  
*Lobelia* *spicata* fl.  
*Oenothera* *auriculata* fl.  
*Polygonum* *convolvulus* fr.  
*Carex* *heterochaeta* fr.  
*Hedera* *hirsuta* fr. & fl. #  
10 *Scrophularia* *lanceolata* (1 m 5/2 ft. high)  
*Hemlock* *hirsuta* fr.  
*Antennaria* *plantaginifolia* fr.  
*Oxycoccus* *pater* var. fl.  
*Cheilanthes* *tutilliana* fl.  
15 *Petalostemon* *purpureus* fl. & fr.  
*Anemone* *cylindrica* fl.  
*Potentilla* *arguta* fr. & fl.  
*Poa* *compressa* - var. fr.  
" *pratensis* " "  
20 *Rhus* *copallina* fl. & fr.  
~~*Agropyron*~~ *Purshiana*? fl.  
~~*Agropyron*~~ *macrourum* fl.  
*Thysanotus* *virginicus* fl.  
*Fragaria* *virginiana* fl.  
*Comandra* *umbellata* fl. & fr.  
25 *Aster* *oblongifolius* fl.  
*Ambrosia* *artemisiifolia* juv.  
*Aster* *multiflorus* fl.  
*Mimulus* *mollis* juv.  
*Achillea* *millefolium* fl.  
30 *Anaphalis* *canadensis* fl.  
*Galium* *lanceolatum* fl.  
*Poa* *pratensis* fl.  
*Antennaria* *plantaginifolia* fl.  
*Petalostemon* *canadensis* fl.

- 35- *Antennaria* <sup>*canadensis*</sup> ~~*canadensis*~~ fl.  
*Corylus* *americana* fl.  
*Ceanothus* *americanus* fl. (just beginning)







*Zizia aurea* lf  
*Bromus* — fr  
*Asplenium virginicum* fl (near edge of pond) /  
*Asplenium* — fl  
*Erigeron philadelphicus* lf  
*Prunella terrestris*  
*Asplenium tuberosum* fl  
*Pellaea rotundifolia* lf  
*Asplenium boreale* fl  
*Panicum Scribnerianum* fr  
*Polygonum pennsylvanicum* fr  
*Geranium maculatum* fr (near edge of pond)  
*Solidago angustata* lf  
*Erigeron philadelphicus* lf  
*Pedicularis canadensis* fr (old)  
*Poa pratensis* fl  
*Helianthus scaberrimus* fl  
*Cirsium palustre* fl  
*Aster multiflorus* lf  
*Rhus typhina* lf (young)  
*Potentilla arguta* fl  
*Senecio* — lf  
*Aster sericeus* lf  
*Poa compressa* fr  
*Helianthus laetiflorus* fr  
*Lepidium apetalum* fr  
*Rubus* sp. lf  
*Rhus glabra* lf (young, + fl)  
*Aster canadensis* lf  
*Sisyrinchium campense* fr

On the once-cultivated part the  
 most common species are:  
*Asplenium virginicum* fr.  
*Erigeron philadelphicus* fl  
*Aster multiflorus* lf  
*Solidago rigida* lf  
*Poa pratensis* fr



July 5<sup>th</sup> Mon. 1920  
 Went through woods S.W. of  
 Big Blough & added following  
 to yesterday's list:

I then walked along gro. side of blough  
 & adjoining wooded bank & walked  
 N.W., then crossed to other side &  
 went S.E.

On S.W. side added to Charles & Blough

~~Aporosa~~ ~~fr.~~ ~~com~~  
~~Equisetum arvense~~ ~~stem~~  
~~Eriogonum~~ ~~fl.~~ ~~very~~ ~~vigorous~~ - 2 spec.  
~~Asplenium~~ ~~sp.~~ ~~-~~  
~~Poa compressa~~ ~~fr.~~  
~~Veronica~~ ~~fr.~~ ~~- fl.~~ ~~- no~~  
~~Poa~~ ~~fr.~~ ~~(aristate)~~ ~~tall~~ ~~- 5'~~ ~~flowers~~  
~~Viburnum dentatum~~ ~~fr.~~ ~~(gr.)~~ ~~com.~~  
~~Thalictrum~~ ~~diversum~~ ~~with root~~  
~~Adiantum pedatum~~ ~~fr.~~ ~~- not com.~~  
~~Actaea alba~~ ~~fr.~~ ~~- green~~ ~~- several~~  
~~Asplenium tuberosum~~ ~~sp.~~ ~~- few~~ ~~- lower slope~~  
~~Vicia~~ ~~- very tall~~ ~~- sp.~~  
~~Rubus occidentalis~~ ~~fr.~~ ~~com.~~  
~~Sium~~ ~~graciliflorum~~ ~~fl.~~ ~~rather com.~~  
~~Arabis racemosa~~ ~~fl.~~ ~~- several~~  
~~Arisaema~~ ~~3-4 fl.~~ ~~- fl.~~ ~~- several~~  
~~Desmodium illinoense~~ ~~sp.~~ ~~- lower slope~~  
~~Crataegus pennsylvanica~~ ~~fr.~~ ~~gr.~~ ~~several~~  
~~Trillium grandiflorum~~ ~~sp.~~ ~~- few~~  
~~Salix~~ ~~helix~~ ~~fr.~~ ~~- several~~



Swamp -  
thru along  
In swamp, following:  
Euphorbia latifolia fl. com.  
Cirsium - lf. few  
Rumex - fr. edge  
Silybum maritimum - lf. edge  
Erigeron annuus - lf. com.  
Rudbeckia hirta lf. com.  
Helianthus annuus - lf. edge



On the (larger) prairie opening  
on N.E. side of Big Slough:

*Lepachys pinnata* - bud. com

*Ambrosia artemisiifolia* juv. Very com.

*Rubia eupatorioides* var. - lf. - com

*Aster oblongifolius* - lf. Very com.

*Desmodium canadense* - lf. var.

*Aster sericeus* - lf. - Quite com.

*Artemisia ludoviciana* - lf. " "

*Solidago rigida* - lf. com.

*Helianthus scaberrimus* - juv. - com.

*Pratiensis* - old fr. - very com.

*Aristida bartramia* - lf. - com.

*Astragalus caryocarpus* - lf.



July 6 - 1920 Tues.

Rained a little (steadily) all forenoon & going out was out of question. Hence decided to pack up and go home.

Left Marion Co. for New Jc.  
at 12<sup>55</sup> P.M.

There is a nice strip of prairie  
along RR (I believe S. side) between  
Mann City Jr. and Nora Jr.  
I noted:

*Lilium philadelphicum* fl. var.  
*Corchoris palmata* fl. not uncommon  
*Brauneria pallida* fl. com.  
*Helopsis scabra* fl. com.  
*Botanostemum canadense* fl. very com.  
*Ancistrum sulcatum* fl. frequent  
*"* *synnema* fl. - few  
*Cirsium Hillii* fl. - 2 or 3 fine ones.  
*Stipa spartea* - old fr. very com.  
*Achillea millefolium* fl. com.  
*Silphium laciniatum* fl. - several  
*Erigeron ramosus* fl. com.  
*Centaurea marulata* fl. com. low plants  
*Convolvulus sepium* fl. com.  
*Ceanothus am.* fl. com.  
*Amorpha canescens* fl. very com.

*Hemidra hispida* old fr. com.  
*Salix humilis* Ls - very com.  
*Thalictrum dasycarpum* fl. - not uncommon  
*Rumex altissimus* fr. - com.  
*Desmodium canadense* herb. few fl. com.  
*Delphinium Penardii* fl. - not infrequent  
*Asclepias tuberosa* fl. - var.  
*Periplaneta* *leprosa* fr. - none  
*Aster multiflorus* fl. - com.  
*Prunella angustifolia* fl. - not rare  
*Solidago rigida* - fl.

Waited at Mra. Jc. until 2<sup>30</sup>.  
at Mra. Jc. found a small (rayless?)  
Cotula very abundant along RR  
near lunch room.

at New York:  
*Urtica dioica* fl.  
*Hedera helix* fl.  
*Prunella americana* fl.  
*Delphinium bicolor* fl. very com.  
*Oxybaphus angustatus* fl.  
*Morone (drooping)* fl.  
*Scrophularia leprieuxii* fr.  
*Ceanothus americanus* fl.  
*Silphium laciniatum* fl.  
*Platanus occidentalis*  
*Lepidoptera* *pinus* com.  
*Urtica dioica* fl. com.  
*Silphium laciniatum* fr.  
*Maranta arundinacea* fl.  
*Antennaria dioica* fl.  
*Rumex crispus* fl.



*Campanula medium* fl.  
*Trifolium pratense* fl.  
<sup>med. 17</sup>  
*Polypogon monspeliensis* fr.  
*Anemone canadensis* fl.  
*Asperula tuberosa* fl.  
*Artemisia canina* fl.  
*Thalictrum dasycarpum* fl.  
*Desmodium virginicum* fr.  
*Galium* — fl.  
*Tagetes exaltata* fl.  
*Trifolium* — yellow — fl.  
*Prunella angustifolia* fl.  
*Asclepias tuberosa* fl.  
*Rosa pratincola* fl.  
*Ampelopsis* — fr.  
*Vitis vulpina* — fl.  
*Lycium virg.* — fl.  
<sup>Ipomoea</sup>  
*Cynanchum* — small — fl.  
*Rudbeckia* — fl.  
*Elymus canadensis* fl.  
*Apocynum (pink)* fl.  
*Cornus palmata* fl.  
*Salix borealis* — fl. & fr.  
*Achillea millefolium* fl.  
*Solidago rigida* fl.  
*Particaria nativa* fl.  
~~*Polypogon monspeliensis* fl.~~  
*Euphorbia Purshii* fl.  
*Asclepias purpurascens* fl. & fr.  
*Lehrmannia apiculata* fr.  
*Rudbeckia laciniata* fl.  
*Carex festucacea* fr.  
*Rhus toxicaria* fl.



Expenses - Oaklan Mills, Kednuk, etc.

Nov. 7 - Minto, Oaklan Mills	.20
Supper - Ft. Madison	.55
Lifecover & rode	.25
Nov. 8 - <sup>24. Madison</sup> Hotel 1.50 Breakfast 30	1.80
Dinner - Farmington	.50
	<u>\$3.30</u>

Sunday, Nov. 7, 1926

Left Iowa City (with M. J. Barnes & truck) at 5<sup>45</sup> A.M. and drove on Road 40 - via Riverside, Pinworth, and Mt. Pleasant to Oaklan Mills.

At Oaklan Mills - Roy Archibald <sup>custodian</sup> Park

At Oaklan Mills - Took up plants:

*Quercus imbricaria* H  
*Smilax* — III  
*Quercus bicolor*? (macrocarpa) III.  
*Symphoricarpos* (coralberry) II  
*Acer saccharinum* II

Collected a few fungi, and some terrestrial mollusks. The little State Park here is below the bridge, but Archibald says the Board has some arrangements with the Trustees of the Cemetery by which they gain control of the bluff above the bridge just below the cemetery, which is a top of the hill.

A fellow came along, who said he was employed by the State, and



At Montrose I collected a few shells.  
 We drove to Montrose, and  
 just S. of town we took plants.

*Asimina triloba* (Pawnee) - 17.  
 They were along lower slope (or  
 bench) above the new wagon road.

We remained here until nearly  
 dark, & then drove to Ft. Madison.  
 Put up at The Antler Hotel,  
 Room 63.

I spent the evening in arranging  
 my materials (repacking), and  
 in writing notes.

The day was warm & more or  
 less cloudy, with some sunshine  
 and no rain.

Nov. 8, 1926 - Monday.

Left Ft. Madison on No. 3 for  
 Donnellson & Farmington at 7<sup>00</sup> A.M.

Stopped at the Maple Black Jack  
 dunes. Noted the following: (all in)

<i>Sorghastrum nutans</i>	<i>Achillea millefolium</i>
<i>Panicum virgatum</i>	<i>Eragrostis pectinacea</i> v. <i>sp.</i>
<i>Andropogon scoparius</i>	<i>Eupatorium altissimum</i>
<i>Grasshopper polycephalus</i>	<i>Andropogon furcatus</i>
<i>Sporobolus cryptandrus</i>	<i>Ambrosia trifida</i>
<i>Setaria caudata</i>	<i>Quercus whiteoak</i>
<i>Helianthemum majus</i>	11 <i>imbricaria</i>
<i>Rhus glabra</i>	
<i>Symphoricarpos</i> (var)	
<i>Panicum Scribnerianum</i>	
<i>Cirsium discolor</i>	
<i>Verbena stricta</i>	
<i>Scrophularia leporella</i>	
<i>Monarda punctata</i>	
<i>Lepachium virgatum</i>	
<i>Helianthus scaberrimus</i>	
<i>Aster crinitus</i> (re p.)	
<i>Euphorbia corollata</i>	
<i>Oenothera biennis</i>	
<i>Lupinus albus</i>	
<i>Chenopodium leptophyllum</i>	
<i>Cyclopia atriplicifolia</i>	
<i>Eriogonum canadense</i>	
<i>Ambrosia artemisiifolia</i>	

East of my old area.  
 This is on road turning off S. from small west  
 corner.



It began to sprinkle, but we started for Donnellson and Farmington, and drove all the way in a drizzle, which became heavier as we reached the county line.

Just near the W. edge of Lee Co. we came upon a fine patch of *Hypericum prolificum* and took about 17 of them. Also fine fruit, I also collected a few fungi. This is fine timber country, and I must work it more.

At Farmington I saw Mr. [unclear] as the bank, and also who promises to serve on Committee to call on Governor. We drove west to Keosauqua, much of the way over an awful detour. We drove on to Fairfield and Washington, and reached Iowa City at 8:15 P.M.

Put in morning Nov. 9, 1926

<i>Hypericum prolificum</i>	III III III III	N. of Donnellson
Red Cedar		N. of Keokuk <sup>Summitville</sup>
Swamp Wh. Oak		N. of Keokuk
Shingle Oak		N. of Keokuk
Post Oak		N. of Keokuk
Coral-bum		N. of
Shingle Oak		To Madison
" "		N. of Donnellson III
Sapaw - Montine	III III III III	
Swamp Wh. Oak		Summitville
Hard Maple		" - Oakley
<i>Q. imbricaria</i>		"
Coral-bum		"
Wh. Oak ?		Cluffs - "



Tracer - 1 fare \$3.11

1926

Expenses - Tracer, Manson, etc.

Nov. 17, RR. to Cedar Rapids	\$ .99
Nov. 18, Taxi Tracer	.25
RR. to Parkersburg	1.30
Breakfast "	.45
RR. to Manson	3.34
RR. to Sioux City (Ill. Cent)	6.33
RR. to Lister (Ch. Northern)	3.20
Breakfast - Lister	2.66
RR. to Ft. Dodge	.45
Lunch Ft. Dodge	5.87
RR. to Waterloo	3.30
Transfer - Waterloo	3.60
RR. to Cedar Rapids	\$ 22.41
RR. to Iowa City	.35
Tracer RR	1.90
Taxi	.99
RR	2.12
Tracer	.25
	\$ 25.65
	\$ 3.60

as Tracer I met of the Masonic Board  
of custodians. He said that in their  
region (not very rough) the timber  
lands held fertility longer than prairie

Wed. Nov. 17, 1926

To Tracer, Manson, Sioux City & Lyon Co.  
Left Iowa City at 1:30 P.M. for Cedar Rapids,  
where I will meet Paul Huston.

We started for Tracer at 3:00 P.M.  
and drove to Newhall, Keystone, Dyess and  
Tracer. It snowed a little all the  
way and the roads were rough.

We reached Tracer at 6:30 and had  
dinner with a bunch of local members  
(Eus. Larion, The Game Dr. \_\_\_\_\_)  
at the hotel.

At 8 o'clock we went to the  
High School, where a goodly  
number of people were gathered.  
Paul Huston spoke briefly, the  
Cedar Rapids Lyral Walton quartette  
gave some good music and I  
talked an hour on the general purposes  
of the League.

We sat up until 2:00 A.M. in the  
secretary's office.



Thursday, Nov. 18, 1926

Was called at 4:30 am. and  
the mail man took me to the  
C. & N.W. Ry station a mile from  
the hotel. A veritable blizzard  
was rising and the snow was  
blown about in swirling clouds.  
The train for Parkersburg  
came at 5:24, but did not come  
in until 7:00 am. Reached  
Parkersburg at 8:00 o'clock.  
Had breakfast and took train  
for Marion (Ill. Cent. Ry) at  
9:52. Was met (at 12:46) by  
young Mr. Haney and taken to the  
home of his father and mother,  
both very interesting people.

At the evening meeting, Campers,  
Mrs. Whitney & I, & Mr. Kremer,  
President of the Marion Chapter talked,  
& Sup't. Ladd presided (& talked).

A good, earnest meeting. Young  
Haney told me that his father  
knew little about the League, but  
after the meeting he showed  
extreme interest.

We sat up again until 1:30  
am. - for some time with  
Mr. & Mrs. Haney. He was full  
of questions.

The afternoon and evening were  
quite moderate though it was  
cloudy. Much less snow fell  
here.



Friday Nov. 19, 1926

Left Mason at 4:49<sup>+20</sup> AM.

It is still cloudy, but no snow is falling.

I fell asleep and awakened at Le Mars.

Out of Le Mars we follow the valley of <sup>It is</sup> narrowly fringed with timber. To the right are rounded swells (not abrupt) of Kansan. Beyond the rather shallow valley to the left <sup>rather</sup> the low but massive hills are the same. The whole topography is rolling Kansan.

Merrill lies in the valley wholly.

Beyond Merrill the valley narrows & nearby there is a larger patch of woods, - in the valley, which is rather flat. There are big clay banks on right hand side, - lower in far part of <sup>at Sioux City</sup>

Was met at station by Bolton and taken to his home. His wife is a doctor and has practiced. They have two little girls. The little one, Josephine, entertained me quite a bit. I did not meet the other, who is in school.

We drove out to Joy creek & look over the ground a little. On the return we drove over into Nebraska where the local chapter has 110 A. of sandy flat & lake front. This promises to be quite an enterprise.

In the evening I attended the Abn-Baker Shrine ceremonial. A large number was present, among them 150 from Sioux Falls.

Spent night at Bolton's home. Bolton & his two friends agreed to boost the park idea for Joy creek.



Sat., Nov. 20, 1926

Left at 5:30 am. for Lester via the Great Northern. No snow has fallen. The wind is sharp but it does not seem to be as cold as yesterday.

Dark, and I went to sleep. At and N. of Perlins the topography is quite gently rolling Kansan.

Towards Dorn and at Dorn there are large gravel pits. Alford is right on this gently rolling Kansan plain.

A little more snow northward. This rolling Kansan continues to Lester.

Reached Lester at about 8 o'clock & went to restaurant for a little bite of breakfast. I then tried to telephone to L. O. Severson, custodian of Gilchic Manito Park

at Larchwood, but while I was waiting he came into the telephone office. They had a storm here which destroyed communication by wire. Severson is also a county supervisor. He had an appointment at Rock Rapids and asked me to wait at the hotel. I went over there and had a peculiar reception. When I came to Lester I looked up the street and noted a "Cafe" sign. I went to the place and had my very light breakfast, & then went to the telephone office. When I came to the hotel I told the proprietor that I would just wait a little while for Mr. Severson. He blurted out that a man looking for accommodation ought to accommodate (or words to that effect). He was sure that I took breakfast in the restaurant. He said that Severson had declared that



[illegible]

Don't

name

Penn

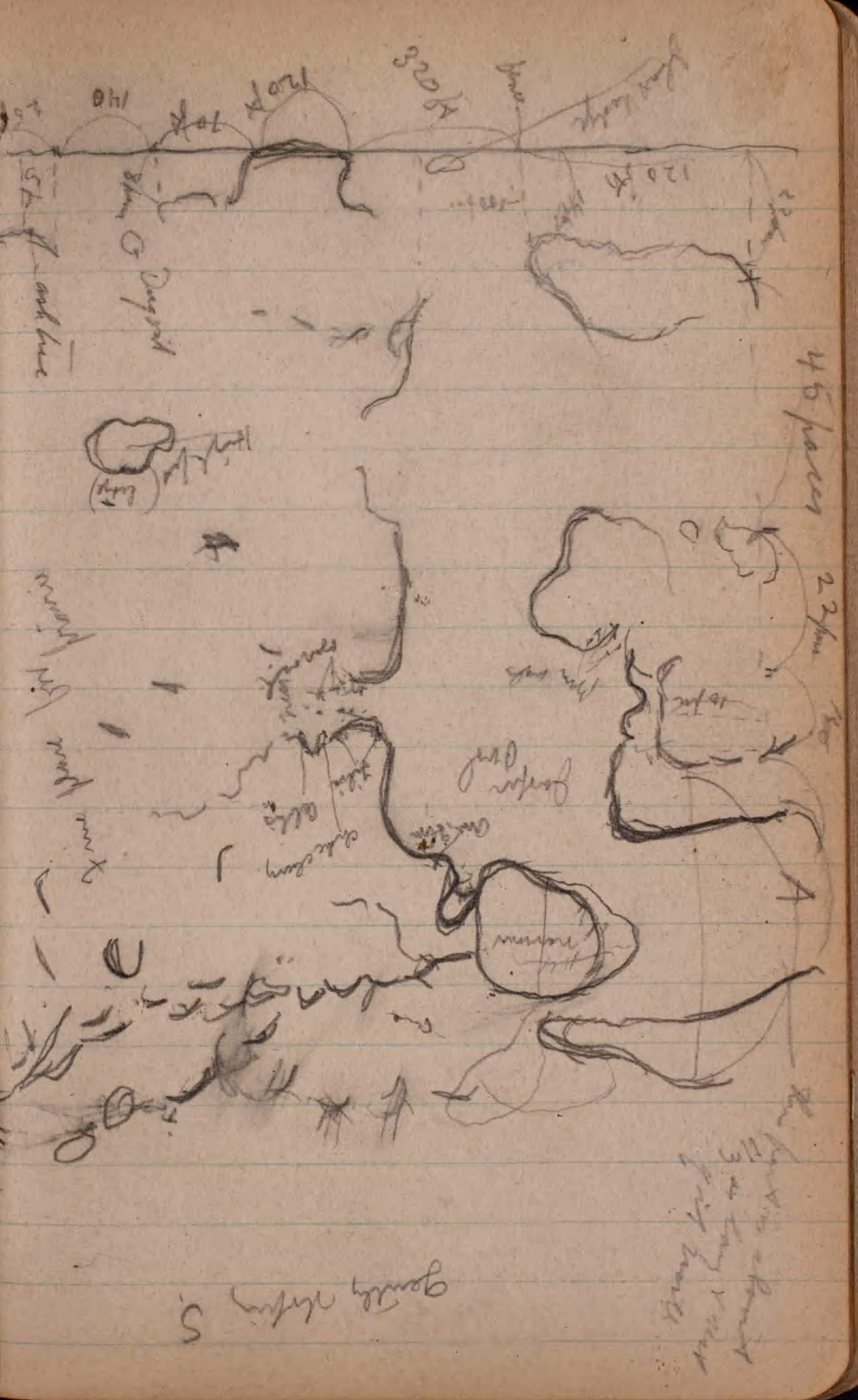
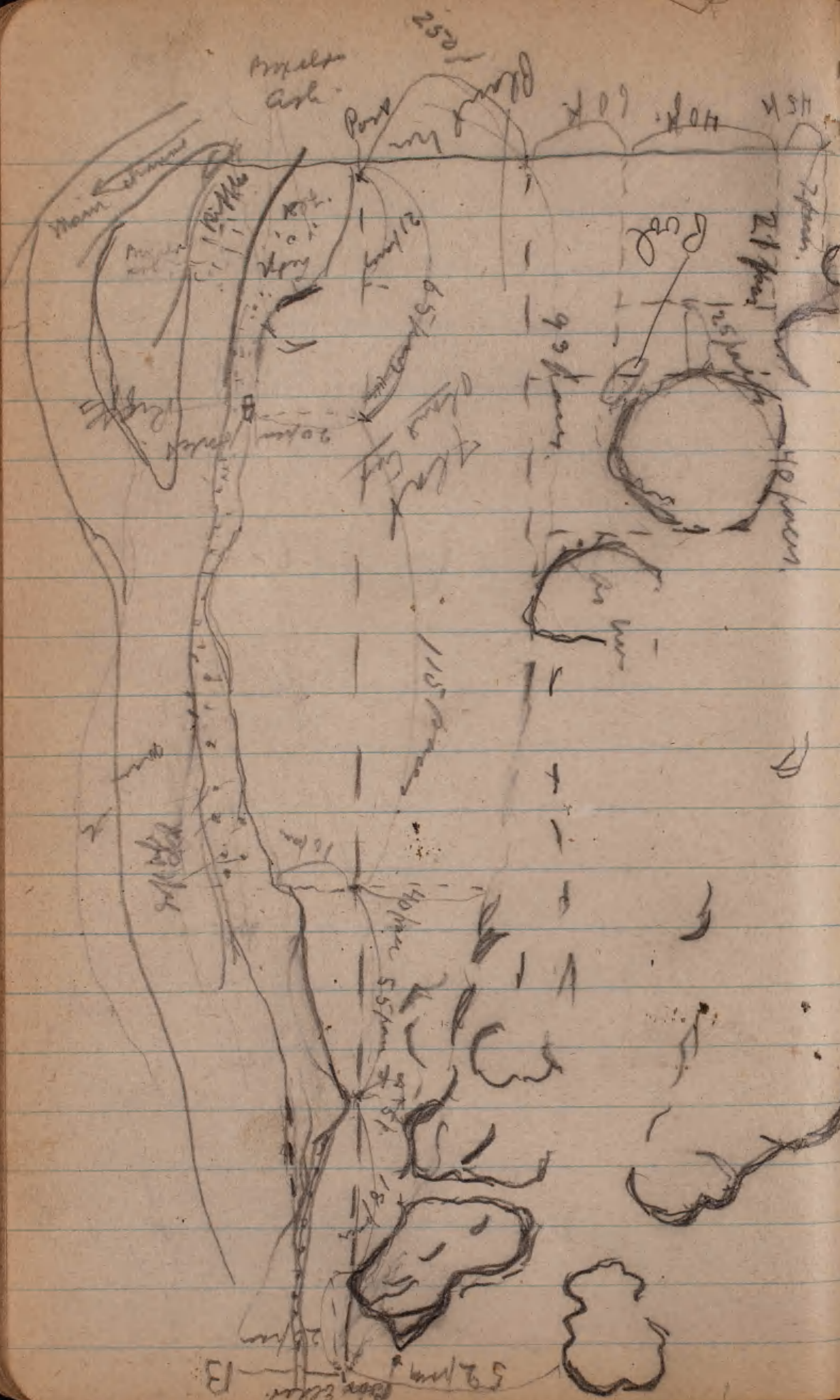
Line

1200 M

Line 4 - 4

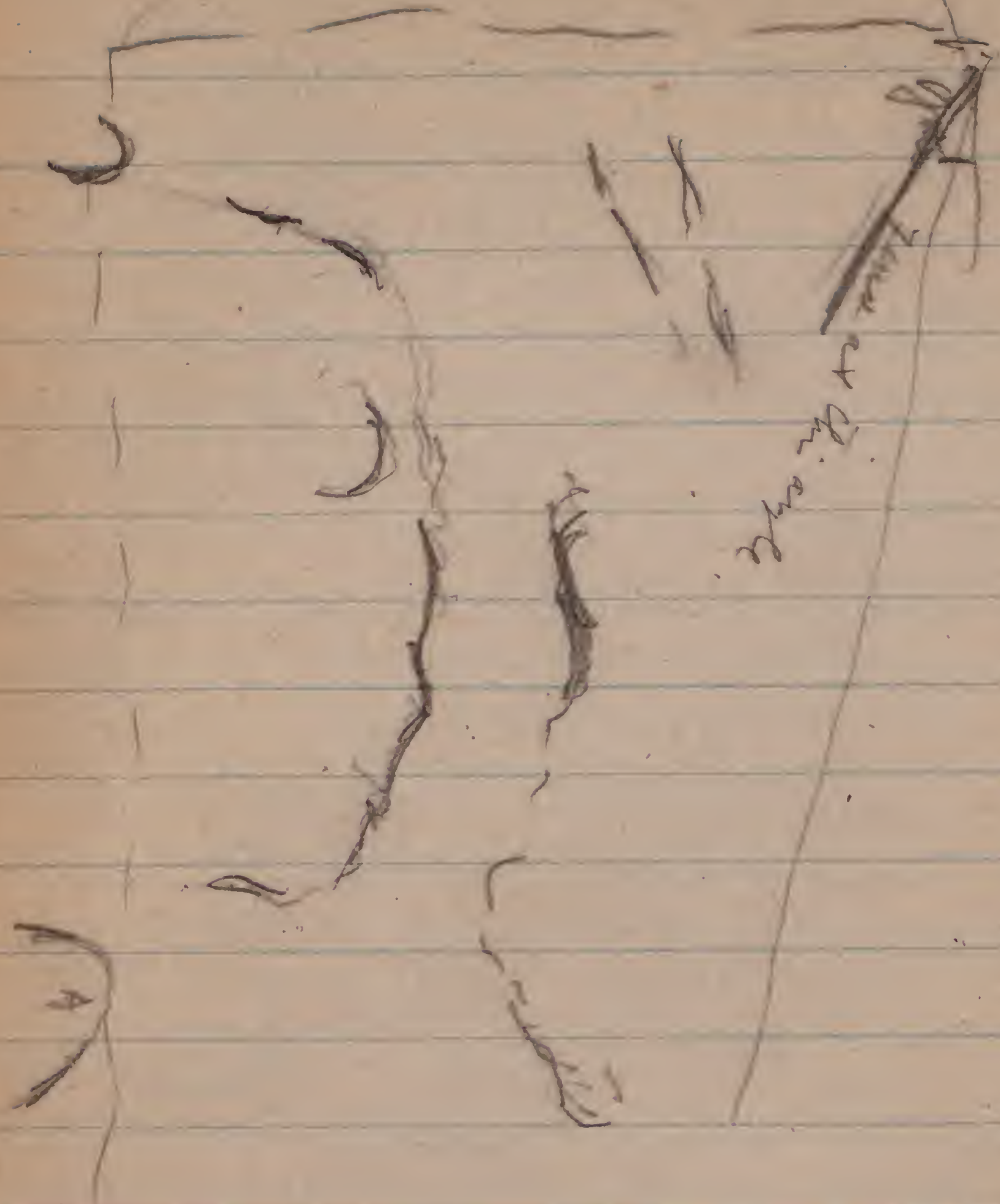
8



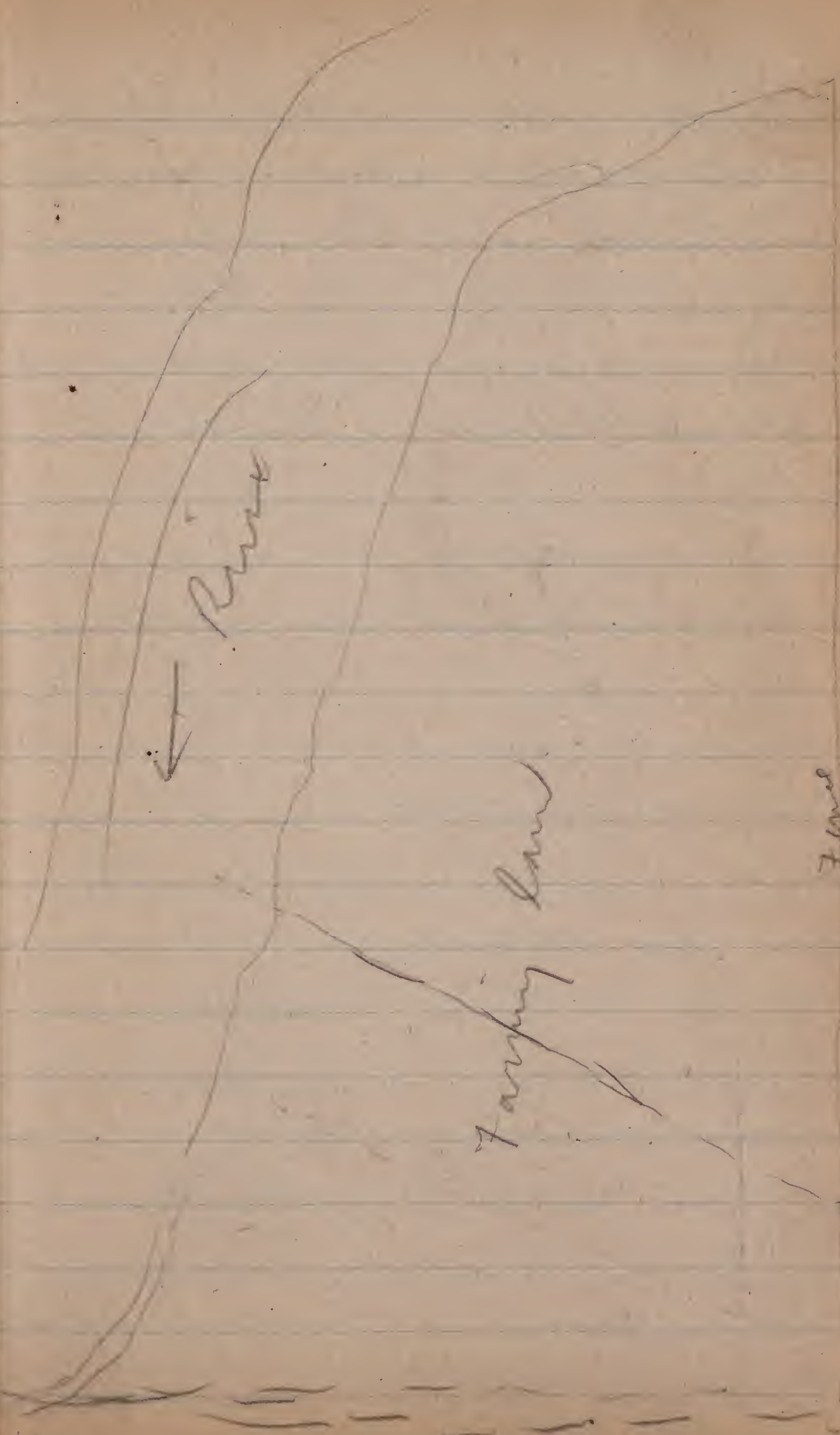




5307A



House at the angle



House at the angle

House at the angle

House at the angle

House at the angle

House at the angle



Severson returned about 11 am & we started for Larchwood, where we took lunch, and then on to the Gitchie Manitowish Park. There is much more snow beyond Larchwood.

I made sketches of the park (the plants) and from Mr. Severson very sympathetic. He is chairman of the Board of Superintendents and serves without compensation.

I collected *Juniperus aspl.* (Red or Green?)  
*Salix amygdaloides*, *S. missouriensis*,  
*Prunus virginiana*, *Acer negundo*  
and *Lilium americanum*.

Among the trees <sup>shrubs & vines</sup> I noticed:

<i>Prunus virginiana</i>	quite large - rocks,
<i>Quercus occidentalis</i>	on rocks
<i>Quercus macrocarpa</i>	stunted -
<i>Glomus americana</i>	on rocks
<i>Traxerus penns.</i> (?)	on rocks, etc.
<i>Lilium americanum</i>	on rock.
<i>Symphoricarpos occidentalis</i>	rock & prairie
<i>Salix missouriensis</i>	lower
" <i>amygdaloides</i>	"
<i>Acer negundo</i>	"
" <i>saccharinum</i>	"

*Vitis vulpina* - lower.

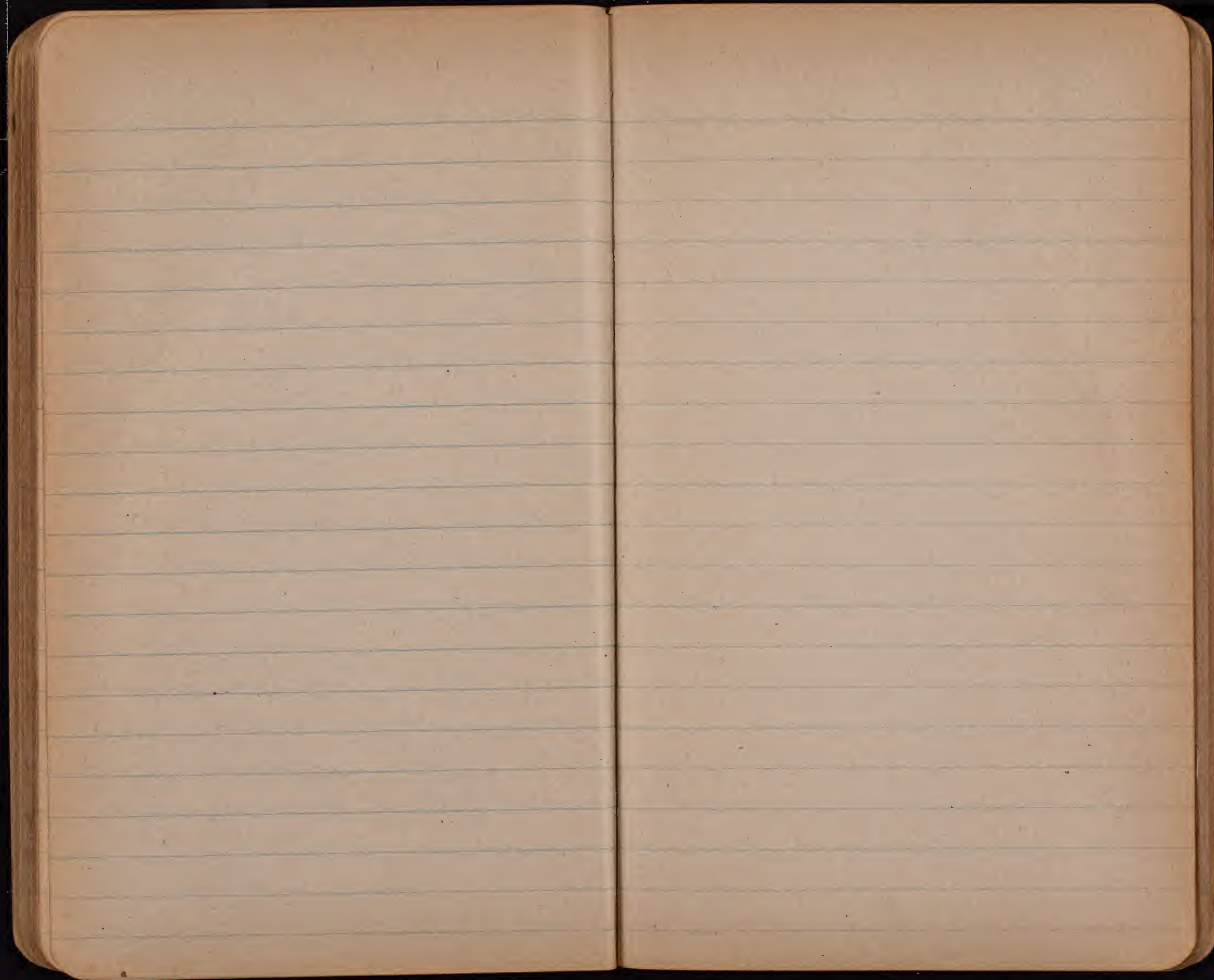
I saw a number of pheasants.

We drove to Rowena. While at station a small flock of prairie chickens flew low & almost over the station. Station Agent said he hadn't seen any for years here.

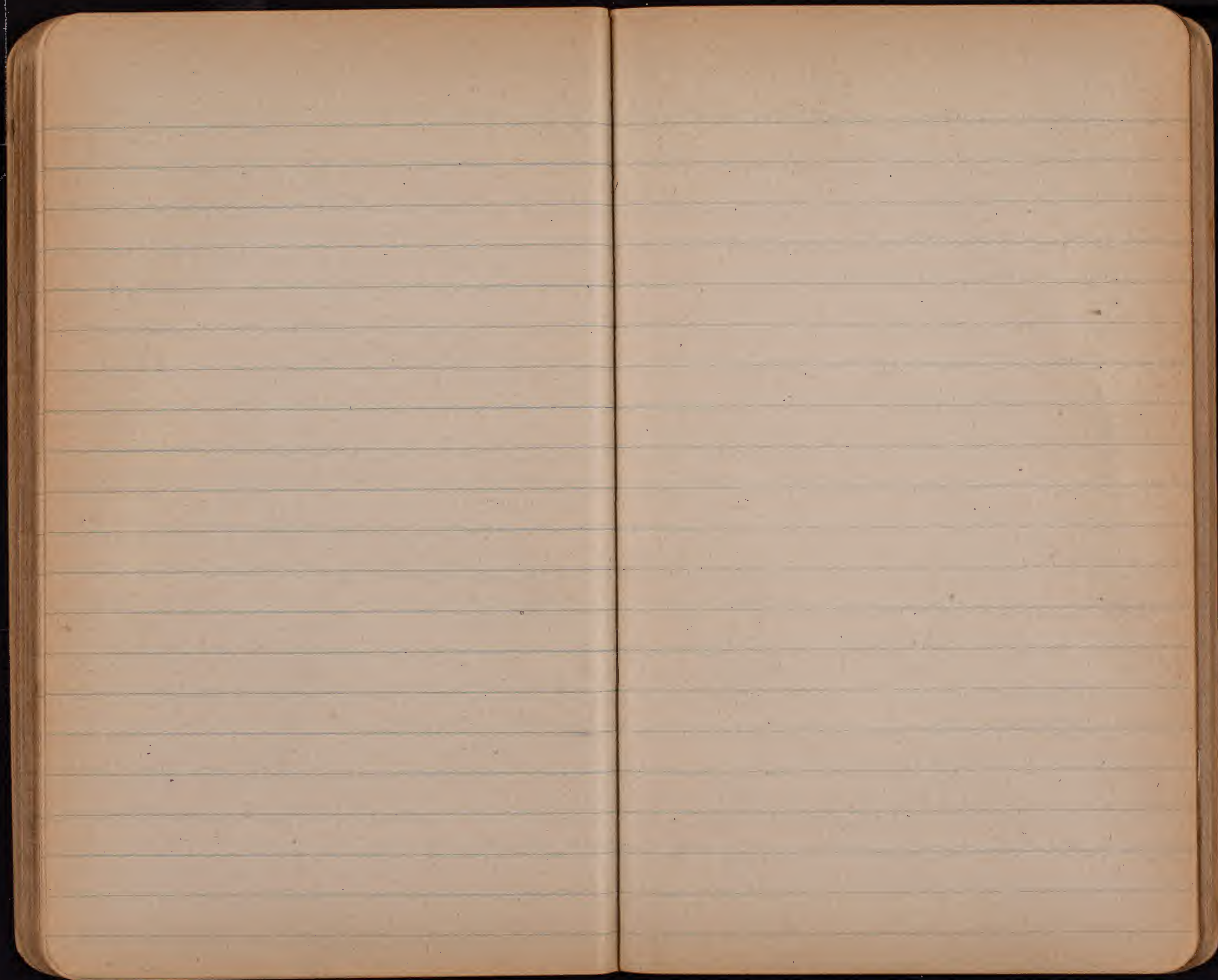
I left at 4:21 for Cherokee and Ft. Dodge.

It has been cold (& getting colder) all day and slight flurries of snow came.

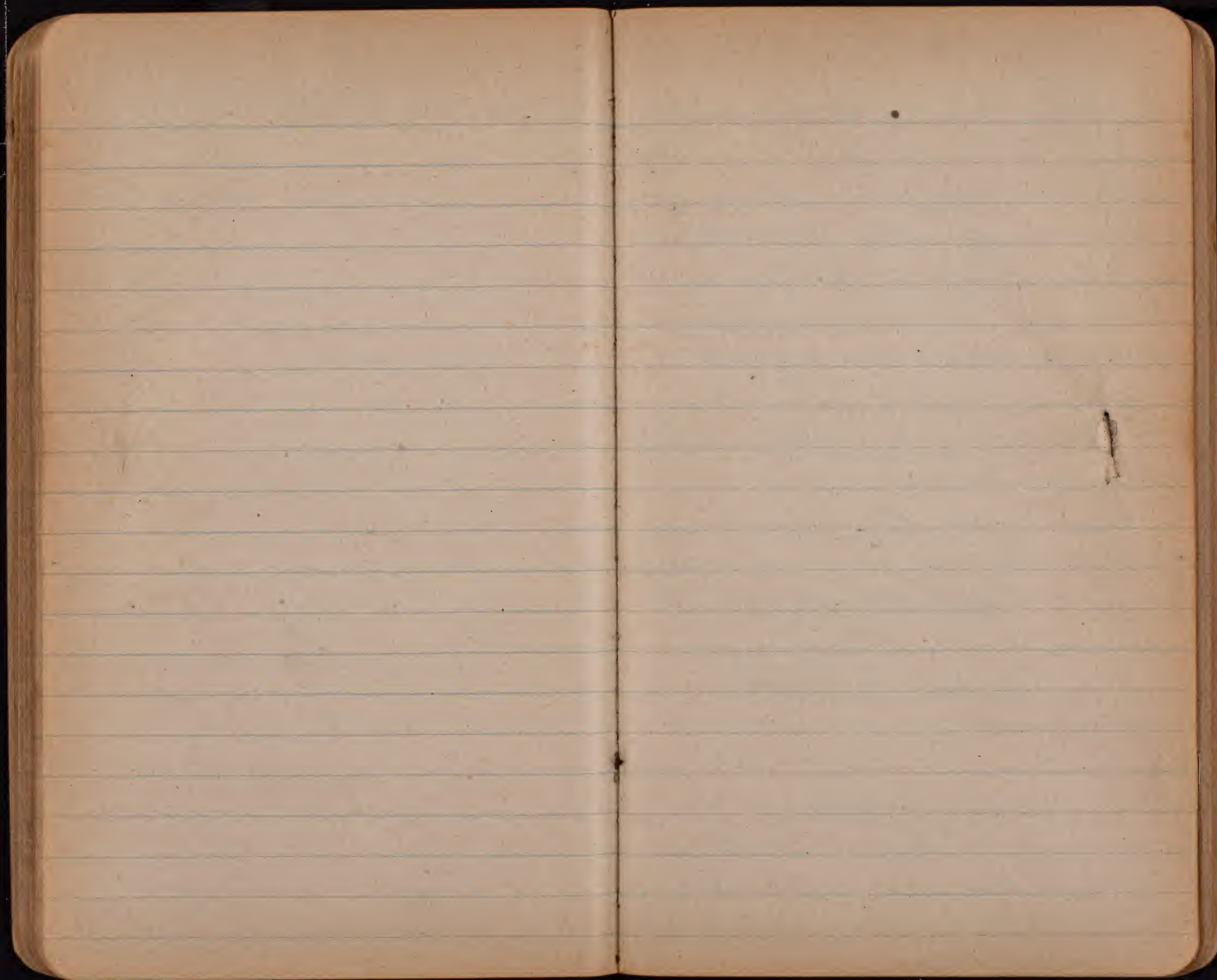














Experiments with leaves &  $SO_2$   
in Lab.

Secured leafy branches from park.  
Kept them in water from 11<sup>00</sup><sup>am</sup> until  
1<sup>30</sup> PM. before experiment. Aug. 25<sup>15</sup>

Placed the leaves in a jar  
(6900 cu. cm.), with 87 parts of  $SO_2$   
in 1000000 parts of air. They  
were placed in at 1<sup>30</sup> PM, & kept  
in 15 min.

An Am. elm shoot with 3 young  
and 2 older leaves - showed all leaves  
wilted. They wilted first and then  
shrivelled. One of the younger leaves  
was dry & crisp, the others soft but  
wilted.

The Sycamore, *Crataegus mollis* and  
parony showed no effect.

Grass elm and clover leaves treated  
by very strong gas by Dr. Wolschke,  
began to bleach in about a minute,  
and were killed.

Same day - Aug. 25, - set up  
leafy branches in bottles, - sealed,  
as follows (the bottles being  
placed in glass cases

$2\frac{3}{2} \times 26 \times 14\frac{1}{2}$  in. ) - <sup>between</sup> 11+12  
North case (I). <sup>am</sup>

Placed in it 2 bottles of *Crataegus mollis*  
1 " " *Sycamore*  
1 " " Am. elm

Introduced 2.85 parts of  $SO_2$  in 1000000  
at 1<sup>30</sup> PM. The tip of young leaf  
of Am. elm. was somewhat wilted.  
At 5 PM. the elm recovered,  
the gas being reduced.

Thursday, Aug. 25

At 8<sup>30</sup> AM. - introduced 2.85  
to 1000000.

At 1<sup>30</sup> the Am. elm was again  
somewhat wilted.

The control spec. looked well,  
(but <sup>in S. case</sup> *parony* failed because water  
ran too low.)



At 5 PM the strength was increased to 5 to 1000000.

Wednesday, Aug. 25

South case II - prepared same time,

used 10.7 to 1000000.

Took case off at 6 PM, & aired, then introduced 10.7 again.

The gas had been reduced to 1.3 in 1000000.

The leaves were not much affected. The youngest leaf on elm was somewhat curled and wilted.

Thursday, Aug. 26

At 8<sup>15</sup> changed as before, & re-introduced 10.7 as before.

At 1<sup>30</sup> the young leaf on

larger elm short (forked one) is dry at tip and leaf is somewhat curled.

The control specimens - same as inside - look well, but papyrus failed, - water ran low. The south case contains:

1 bottle of papyrus.

2 " of Crataegus mollis

1 " " Ulmus alpinus

At 8 am. Thurs. gas ran to .3

By noon " " " .4

Renewed the same at 5<sup>30</sup> PM.



Thursday, Aug. 26, at 1.45 PM  
put Sycamore (1 larger short)  
pawony leaf, & Crataegus back  
into jar (they had quite  
recovered). Then used 101  
parts to 1000000.

Put in at 9 min. of 2 PM. &  
taken out at 21 min past 2.  
Set them back into jars of  
water. They recovered fairly  
well during the day.

Friday Aug 27

At 7.45 AM. Sycamore,  
pawony & Crataegus which  
had been in jar looked well.  
In case I. Introduced 5 to 1000000

From Dr. W.

10<sup>20</sup> AM Introduced 5 cc = 35 to M,  
in S. case (II).

10<sup>30</sup> AM. Sampled & found 1.1 per M.

11<sup>08</sup> AM. Added 5 cc.

11<sup>18</sup> AM. Sampled & found 3.7 per M.

1 PM. Introduced 5 cc.

1<sup>10</sup> PM. Sampled & found 6.5 per M.

2<sup>17</sup> " Introduced 5 cc.

2<sup>47</sup> " Sampled & found 2.8 per M.

3<sup>52</sup> " Introduced 5 cc.

4<sup>22</sup> " Sampled & found 3.7 per M.

4<sup>26</sup> " Introduced 5 cc.

Aug 28  
At 9 AM. Both samples  
case II & found .4 per M.

Looked at, air & added 3 cc  
(= 2.14 per M.)



Frida - Aug. 27.  
 Case I (North) (Dr. W.) copy  
 Introduced .7 cc at intervals:

10.35 am

11.11 "

1.02 pm

2.20 "

3.54 "

Case II Left undisturbed  
 Put in 21.4 per 1000 cc. } See  
 Analysis shows .4 } preceding  
 pages.

(Mine)

Added 3 shots of am. am,  
 & put same pyramine,  
 Crataegus & praeony into  
 jar with 101 parts to M.  
 at 8.04. At 8.19 taken  
 out & put in water.

At 9 o'clock the younger  
 lvs. were somewhat wilted,  
 even the larger ones.

Saturday - 28 (Dr. W. & family)  
 Case I (North)

Shot in .7 cc. 102:

7.57 am

1.22 pm

9.14 "

1.55 pm

10.32 "

2.57 "

12.14 pm

3.30 "

at 4.04 sampled & found 1.5  
 per M. at 4.08 per M. &

air in room.

Case II (South)

Intro. 5 cc. at 7.55 am

sampled at 8.05 & found 5.7 parts per M.

9.09 am. 5 cc

9.39 " Sample = 2.1 per M

10.30 " 5 cc.

11.00 " Sample = 1.7 per M

12.12 pm 5 cc

1.19 " 5 cc

1.49 " sample 2.2 per M.

1.53 " 5 cc

2.55 " 5 "

3.25 " sample = 2.5 per M.



3.28 PM. 5cc

4.08 " - open room - air and sun

Aug. 29

Final notes.

Case I - was removed yesterday  
& plants left exposed.

Plants look quite well except  
that Am. elm leaves are somewhat  
wilted, & Crataegus somewhat  
~~curled~~ <sup>curled</sup> and with few brown  
spots.

Case II (South)

The elm looks sick. Leaves  
wilted and more or less curled, -  
the curled edges in some cases  
crisp (dead & dry).

The Crataegus has <sup>many</sup> large  
brown spots & blotches on leaves.

Leaves scarcely curled.

The paeony looked sick, - after

leaves curled & yellowish,  
lower ones (4) mostly curled  
at edges & these edges crisp  
(dead & dry).

The control specimens, except  
1 paeony & 2 Crataegi in which  
water had failed in bottles, are  
looking well. The elm  
is slightly wilted at tips  
in both specimens, but  
not crisp.

The latest spec. of leaves  
in tumbler <sup>of Am. elm</sup> are looking well  
except for 1 crisped leaf  
& tips wilted.

In older set:

Sycamore - looks well

Paeony - slightly wilted

Crataegus - somewhat curled.



The stuff in jar (blue gray  
etc.) is bleached white,

The weather has been:  
Wednesday - 11<sup>30</sup> am. clear  
Thursday - cloud, cold, dark  
Friday - clear but cool  
Saturday - Mostly cloudy.

In all cases the edges of  
leaves were first affected.

Control spec. suffered (esp.  
Am. elm) from escaped gas.

Saved specimens for sectioning:  
From case I

Crataegus; Sycamore, Am. elm

From case II - control at S. case,

Am. elm.

From control N. case

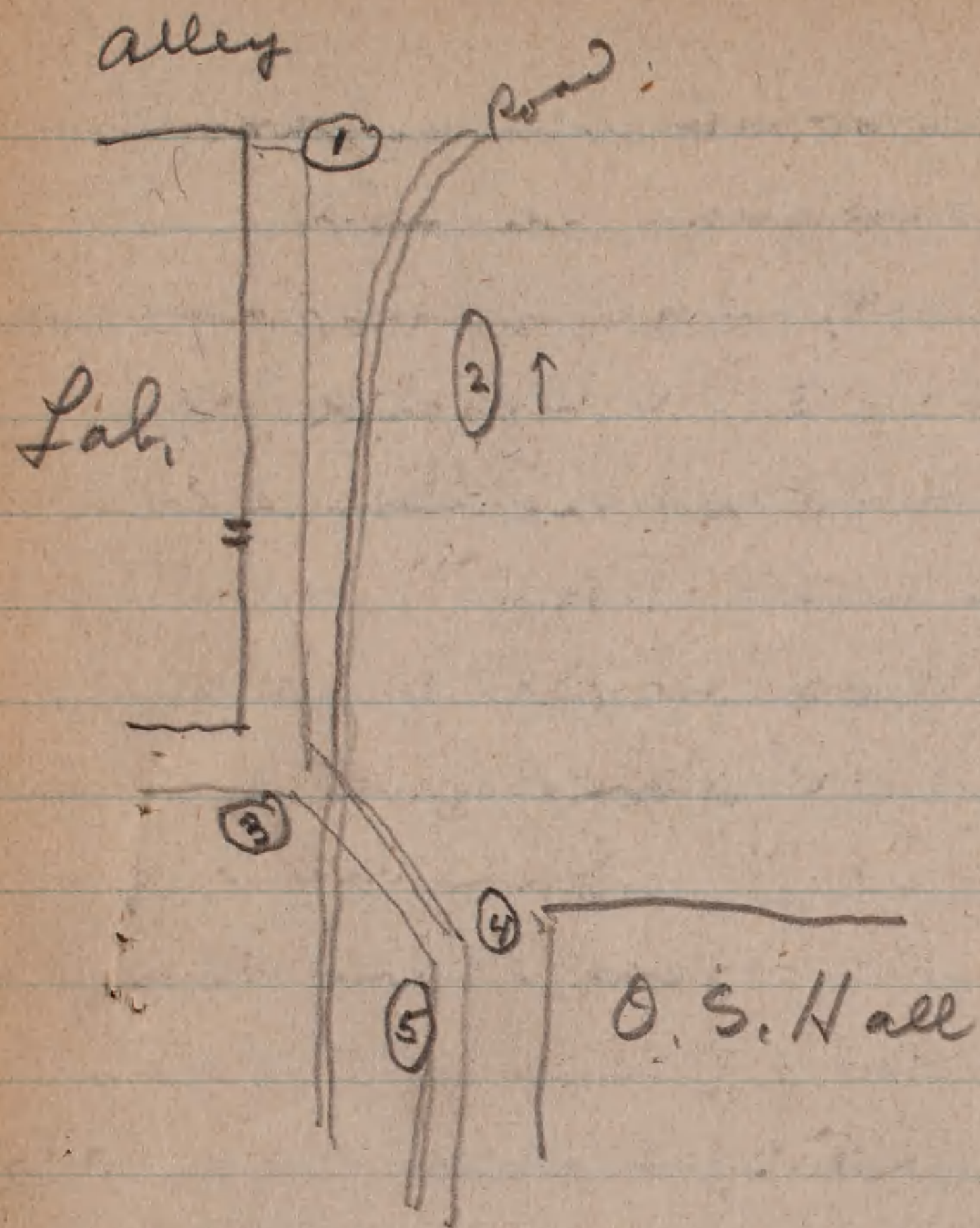
Sycamore, Am. elm.

Crataegus.

In all cases the plants  
in cases gave off water  
which gathered in drops  
and this probably took up  
much gas.

I also examined places  
out of doors where we  
charged tubes with  $\text{SO}_2$ .  
(see next page.)





1- Noticeable effect about 8 ft.,  
about 4 ft. each side of cylinder.  
Plants (all affected):

Dandelion

Blue grass

Foxtail (*Setaria viridis*)

*Chenopodium album*

Young box elder

" am. elm

*Polygonum pennsylvanicum*  
*Hordeum jubatum*

In many cases parts (edges &  
tips) of leaves suffered only,  
where there were more exposed

At 9.00 A.M., Aug. 27,  
sample of air taken  
from Case II (south) and  
found to contain 0.4 P.p.m.  
of  $SO_2$ . The case was re-  
moved, taken outside  
for airing, and re-  
charged with 3 cc  $SO_2$   
(21.4 P.p.m.)

Nothing was done  
with Case I (north).

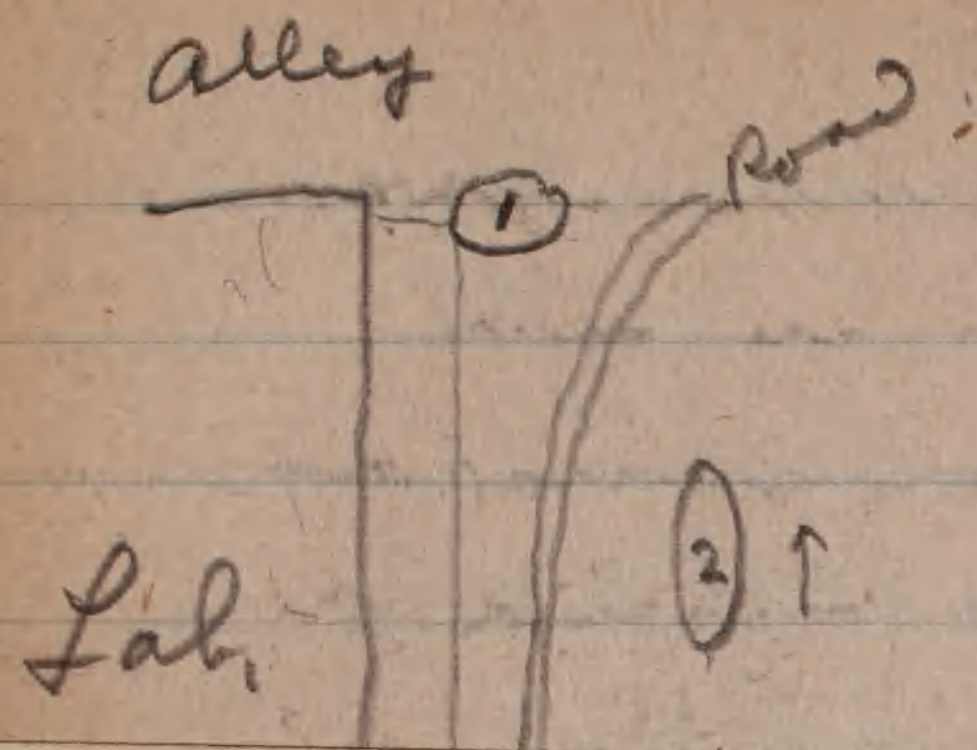
(Completed)

*Setaria viridis*

Nearly leaves nearly all dead,  
farther away, edges & tips.

3- Over 2 ft. in diam., nearly  
circular (sheltered) (over)





*Polygonum pennsylvanicum*  
*Hordeum jubatum*

In many cases parts (edges + tips) of leaves suffered only. Where they were more exposed, all dead.

2- On blue grass lawn,

Nearly 6 ft. from cylinder, which was at S. end. Wind from S.W. Nearly 2 ft. wide.

Plants:

Blue grass

White clover

Dandelion

*Setaria viridis*.

Nearly leaves nearly all dead, farther away, edges + tips.

3- Over 2 ft. in diam., nearly circular (sheltered). (over)

Plants (all affected):

Dandelion

Blue grass

Foxtail (*Setaria viridis*).

*Chenopodium album*

Young box elder.

" am. elm



Plants:

*Setaria viridis*

*Polygonum pennsylvanicum*

*Digitaria*

*Dandelion*

41 - 2 ft. in diam.,

*Blue grass*

*Dandelion*

*White clover*

5 - About 5 ft.

*Setaria viridis*

*Dandelion*.

In all cases nearest the  
dead, - others with tips and  
edges dead, & whitish or  
brownish.



## Mason City - 1922

Sep. 16 - RR. to Cedar Rapids	\$ .96
Sep. 17 RR. Cedar Rapids to Nora Jc.	4.07
Nora Jc. to Manly	.62
Manly to Mason Cy	.34
Taxi, Mason Cy	.30
Breakfast & lunch	.50
Supper	.35
Box of Candy for Kate	1.00
Sodas <sup>10</sup> , gum <sup>10</sup>	.20
Sep. 18 - Breakfast <sup>45</sup> , dinner <sup>30</sup> , supper <sup>25</sup>	1.00
RR. to Cedar Rapids, via Manly	4.91
RR. Cedar Rapids to Iowa City	.96
	<u>15.51</u>

Mason City - Sep. 16, 1922 Tue  
 Left Iowa City at 9:35 PM.  
 for Cedar Rapids.

Sep. 17, 1922 Sun.  
 Left Cedar Rapids at 12<sup>20</sup> AM.,  
 & as the train reached Nora Jc.  
 on time (about 2:14 AM) I decided  
 to go to Manly & down on the  
 Rock Island to Mason City. The  
 latter train was an hour late,  
 and I reached Mason Cy at  
 5<sup>00</sup> AM. I went to Joe's and  
 took a nap.

Went out to the Big Slough at  
 about 10 AM. I worked first  
 at upper part (my *Pisidium* bed).  
 The Big Slough is very dry.  
 There is no water excepting a  
 shallow pond away down  
 next to the road.

I could do no dredging. I collected



quite a lot of marsh plants,  
and also a few on the banks adjoining.  
The day was cool & mostly cloudy.  
While in the Slough I had a  
visit with the new Biology  
Teacher (High School) who comes  
from Northwood, Minn., and a  
young lady reporter of the Mason  
City Times-Globe<sup>(?)</sup>.

I found my prairie slope  
W. of Slough & E. of RR.  
pastured & cut, & did not go  
quite to it.

Returned at 6 PM., put my  
stuff away & just moved car  
for Clear Lake, where I expect  
to see Joe & Kate. It was  
well that I did, for at about  
10 PM. it began to rain, and  
rained all night.

I collected some of *Cirsium montanum* C.  
discolor & *C. lanulatum* - also seeds of *Echinocystis*  
*americana*.

Sept. 18, 1922. Mon.

It rained all forenoon, a little.  
It remained cloudy, but quit raining  
and at 12<sup>00</sup> I went out to the Big  
Slough. The rain made little  
difference in its condition, and  
I could do no dredging.

I collected prairie plants on the  
Wilson tract. The greater  
number of species appeared  
on the original prairie. On  
the restored prairie *Solidago*  
*virgata* predominates, & made this  
strip look greener than the  
native prairie. *Aster*  
*condifolius*? & *A. multiflorus*  
were also abundant.

On rocks in the path leading  
down to the Slough (in the  
ravine running W., & near bottom)  
I found a large amount of



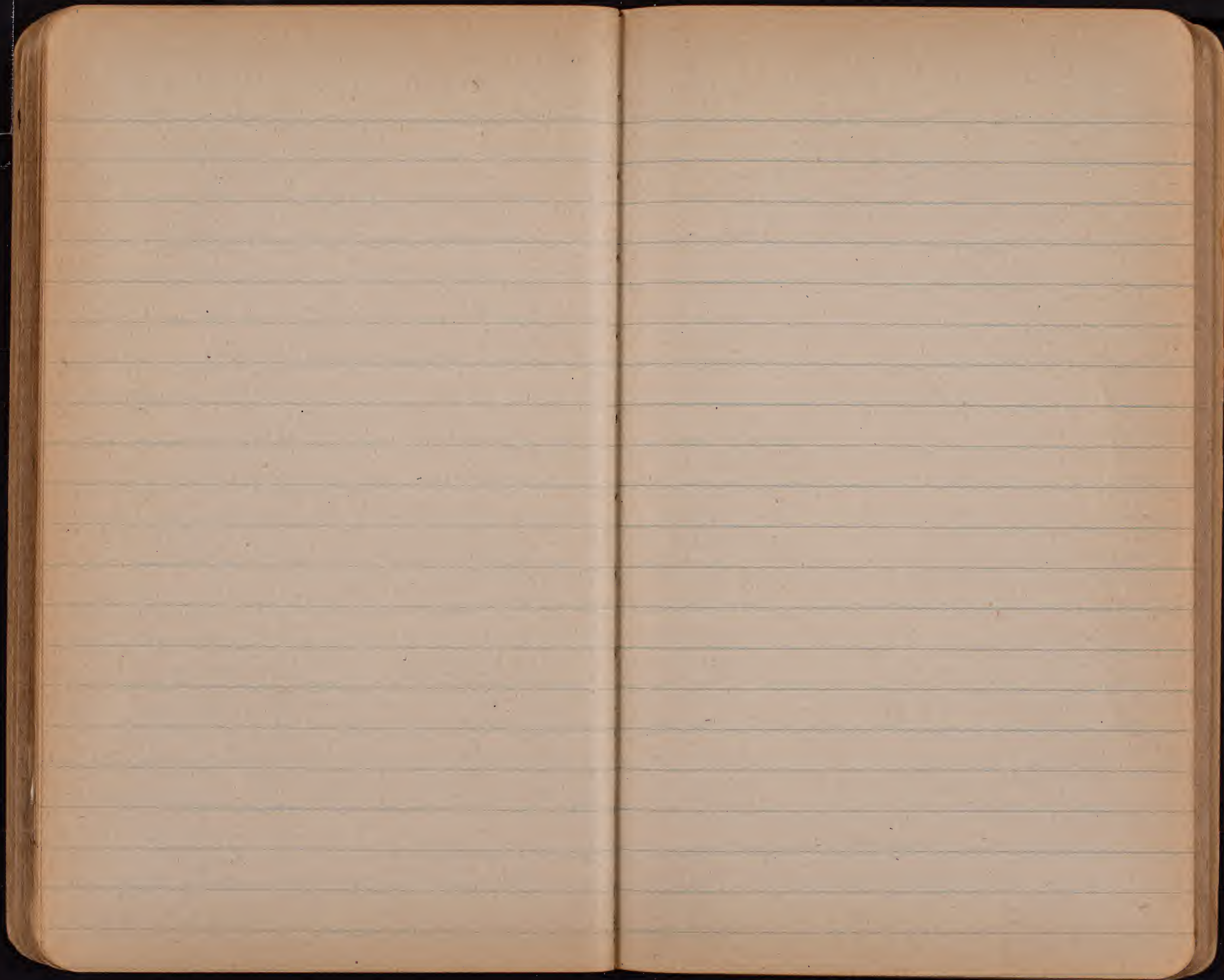
a gelatinous blue-green alga.  
I also picked up a number  
of *Polygona perfoliata* on the  
wooded slopes on SW. side, &  
*P. multiloba* lower down.  
Also a few *Pyramidula alternata*,  
with the above.

I also found a number of  
*Caryocarpus exiguum* on boards  
in the swamp. Also one white  
strawberry under oak chip at  
edge of swamp, & a few  
*Limax*, etc.

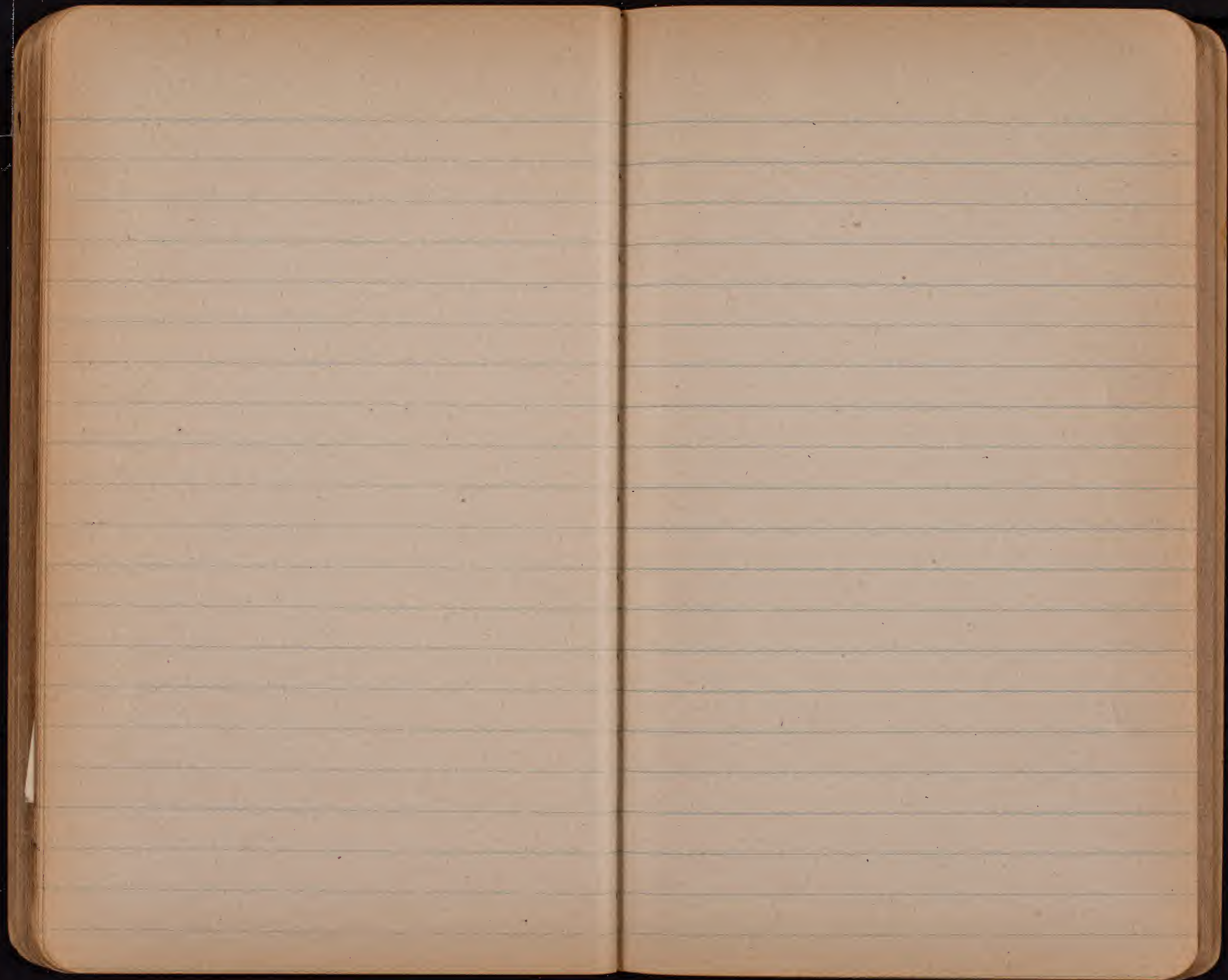
I collected a few plants along  
wooded banks, & in swamp.  
At 2 P.M. it began to rain  
again, & at 3<sup>20</sup> I went back  
on car.

Left Mass City at 6<sup>50+</sup>, via Manly,  
for Cedar Rapids.





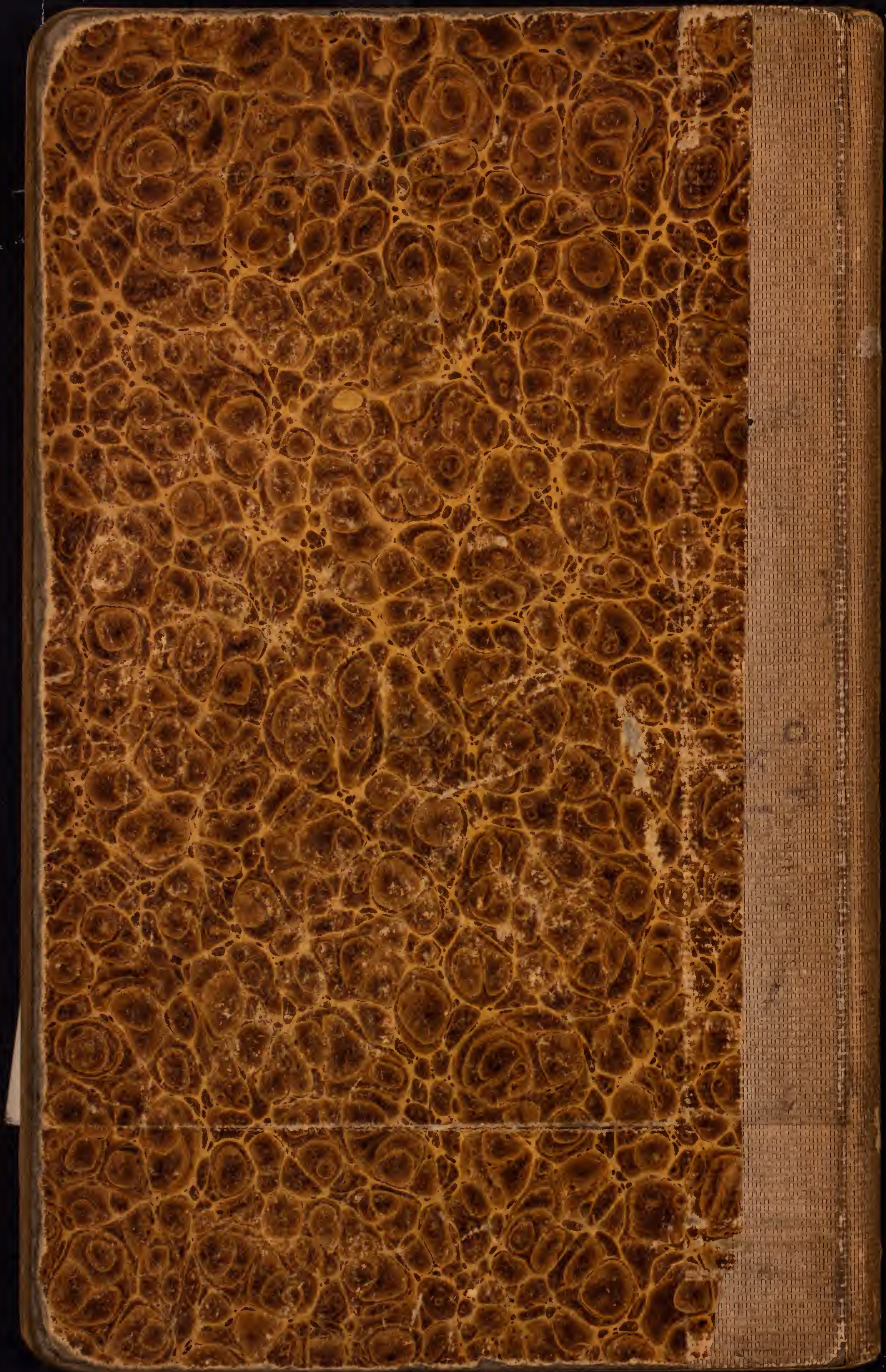




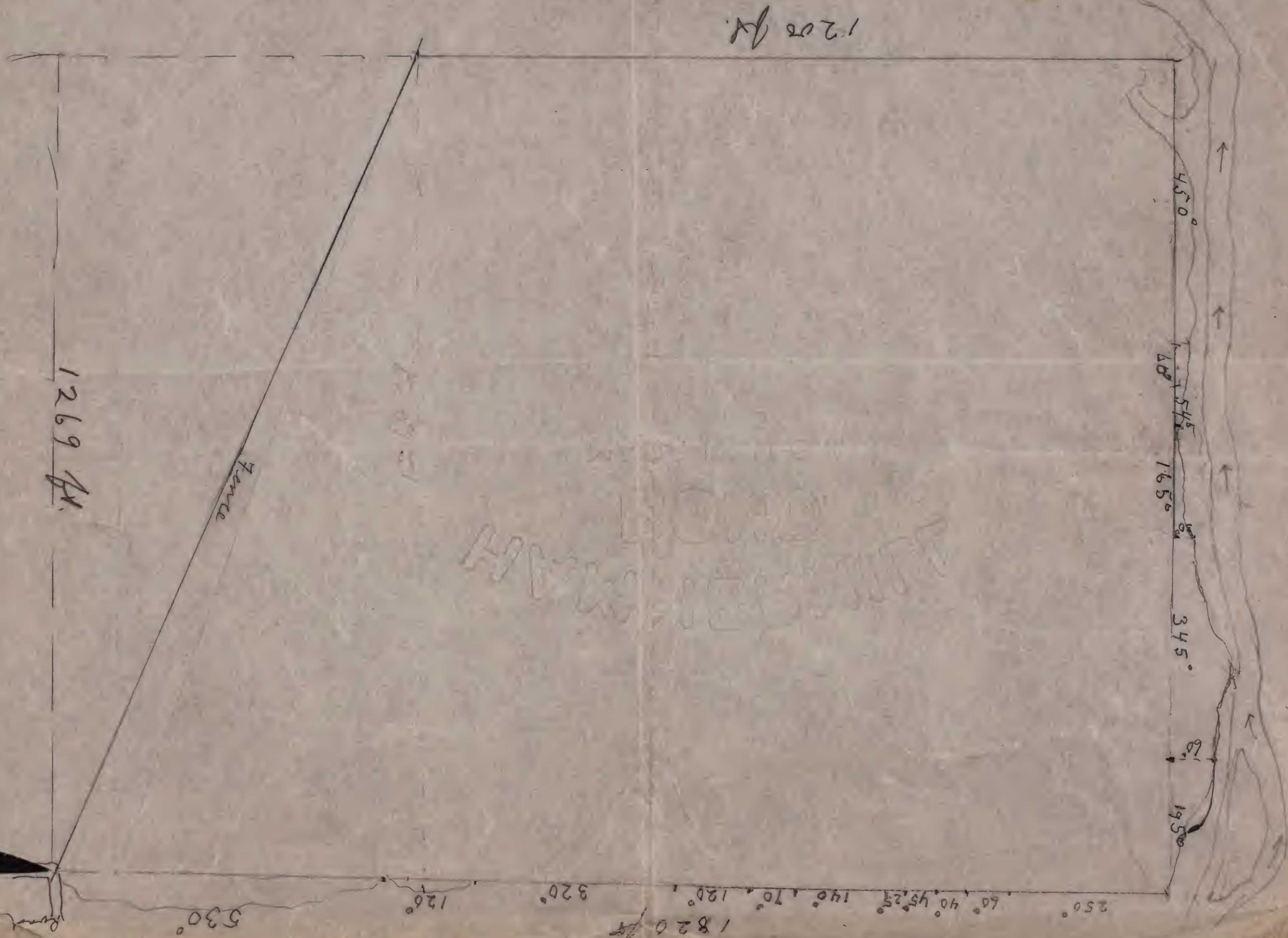


L. O. Severn  
Larchmont











1720 ft. N. side

1269f n, v 5,

1200 ft. D. in

5,87  
3,66

74. *Leontideae - Leontideae*

 $\frac{3}{5}$ 

5

16

1

$$\begin{array}{r} 530 \\ 440 \\ 330 \\ 170 \\ 250 \\ \hline 1720 \end{array}$$
$$\begin{array}{r} 254 \\ 219 \\ \hline 35 \end{array}$$

3.11

66) 1200  $\overline{) 18.2 \text{ ch.}}$

19:2<sup>3</sup>  
18,2

38 46

15384

1923

349.786

66) 18200 } 27.57 ch.  
132 } 18.20

9.37

35 A. in square  
9 A. in  $\Delta$

19.2<sup>347</sup>

9.37

13461

5769  
307

$$\frac{11501}{218.01851}$$

7.

$$65 = 195$$
$$715 = 545$$
$$591 = 99$$
$$10 = 54$$

51

$$66 \overline{) 126900} 19.23$$

609

$$\begin{array}{r} 379 \\ \hline 15 \end{array}$$

1

$$\begin{array}{r} 65 \\ \hline 55 \\ 42 \end{array}$$
$$\begin{array}{r} 4212 \\ \times 17 \\ \hline 29284 \\ 42120 \\ \hline 71604 \end{array}$$

$$\begin{array}{r}
 3.11 \\
 1.30 \\
 5.34 \\
 3.20 \\
 \hline
 10.95 \\
 2 \\
 \hline
 \$21.90
 \end{array}$$

0-5 H